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VOLUME 2

15 SEPTEMBER 1969

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Volume 2 of Unclassified Publications of Lincoln Laboratory lists unclassified reports published from 15 September 1966 to 15 September 1969. In addition, it includes older reports that have become unclassified through the system for automatic downgrading and declassification of classified information.

Unclassified Publications of Lincoln Laboratory, 15 September 1966, which lists unclassified reports issued from 1951 to 1966, should be retained. Its Supplements 1, 2, and 3, dated 15 April 1967, 15 November 1967, and 15 September 1968, may be destroyed, since all the material therein is contained in Volume 2. All reports listed herein, including Journal Articles and Meeting Speeches which are followed by DDC numbers, have been deposited with the Defense Documentation Center, Cameron Station, Building 5, Alexandria, Virginia 22314, and are available to authorized users upon request.

Accepted for the Air Force
Franklin C. Hudson
Chief, Lincoln Laboratory Office

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15 February 1967	AD-650401
15 May 1967	AD-654662
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15 November 1967	AD-664057
15 February 1968	AD-666712
15 May 1968	AD-670832
15 August 1968	AD-675291
15 November 1968	AD-680221
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15 May 1969	AD-690249
15 August 1969	AD-694054

SPACE COMMUNICATIONS

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15 December 1968	AD-846887
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30 November 1966	AD-643821	31 December 1966	AD-646677
31 May 1967	AD-653191	30 June 1967	AD-657327
30 November 1967	AD-663728	31 December 1967	AD-664872
31 May 1968	AD-671125	30 June 1968	AD-673354
30 November 1968	AD-679991	31 December 1968	AD-682297
31 May 1969	AD-689782	30 June 1969	AD-691434

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1966:2	AD-639064	1968:1	AD-668762
1966:3	AD-641498	1968:2	AD-672961
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1967:1	AD-651065	1968:4	AD-681141
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1967:4	AD-665465		

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	<u>DDC No.</u>		<u>DDC No.</u>
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1966:1	AD-645324		

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AIRCRAFT CONTROL AND WARNING

<u>DDC No.</u>	<u>DDC No.</u>
1 June 1952	ATI-172737
15 August 1954	AD-45743
15 November 1954	AD-55744
15 February 1955	AD-63562
15 August 1955	AD-79340
15 February 1956	AD-100344
	15 May 1956
	15 November 1956
	15 February 1957
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DIVISION 3
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15 October 1954	AD-51986
15 April 1955	AD-71339
	15 July 1955
	AD-77139

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15 January 1961	AD-256491
	15 February 1964
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15 August 1954	AD-44515
15 November 1954	AD-52054
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15 March 1959	AD-214566
15 June 1959	AD-225649
	15 March 1963
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2	Some Mathematical Remarks on the Boolean Machine	I. S. Reed	19 Dec. 1951 ATI-165903
3	Use of a Delay-Line Memory to Reduce Radar Pulse-Type Interference (Wildcatting)	T. F. Rogers L. A. Ames J. A. Dumanian	21 Feb. 1952 ATI-165380
4	A Moving-Coordinate Radar Display: Operator Limitations	F. R. Naka B. B. Welles	20 Mar. 1952 ATI-165374
5	Multiplexing a Radio Teletype System Using a Random Carrier and Correlation Detection	B. J. Pankowski	16 May 1952 ATI-168857
6	Echo-Box Pulse Doppler Radar	L. D. Smullin R. H. Fox	6 May 1952 ATI-172738
52	Project Phoenix: A Rapid Data-Transmission System	J. M. Jarema J. L. Breitbord J. F. Leary	16 July 1954 AD-53351
53	An Application of Aural Presentation: Preliminary Report of Project Buzz Saw	A. S. Soltes J. I. Elkind P. H. Baldwin W. H. Huggins J. C. R. Licklider	30 July 1954 AD-42958
66	Digital Detection of Signal in Noise	I. S. Reed G. P. Dinneen	10 Sept. 1954 AD-52554
87	Flight Tests of the Ground-Wave Radar	C. A. Stutt S. J. Fricker M. L. Stone R. P. Ingalls W. T. Quinn	31 Aug. 1956 AD-98864
88	Performance of the Lincoln F9C Radioteletype System	P. E. Green, Jr.	28 Oct. 1955 AD-80345
90	Final Report on the Development of SAGE Height-Finder Remoting Equipment	P. B. Sebring	4 Aug. 1955 AD-82489
94	A Frequency-Shift Teletype System for Ionospheric Scatter Circuits	J. Granlund D. J. Gray W. E. Morrow, Jr.	25 Aug. 1955 AD-82490
96	Height Finding Over the Sea with UHF Radar Using Multi-path Propagation	N. I. Durlach J. Freedman M. A. Herlin M. M. Kessler J. Margolin	29 Aug. 1955 AD-79412
97	Miss-Distance Measurements on the Test Firing of the Porcupine I-A System	E. W. Pike	7 Oct. 1955 AD-82488

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105	Porcupine Low-Altitude Weapons System	Division 4	7 Dec. 1955 AD-94715
109	Model Studies on Predicted-Fire Antiaircraft Systems	E. W. Pike J. H. Hurvitz	8 Mar. 1956 AD-99322
118	A VHF Gas-Tube Duplexer for Long-Range Radar Application	J. W. Meyer E. S. Rosenblum	4 May 1956 AD-100290
122	Cross Polarization of Radar Targets at X-Band	W. J. Jones J. Margolin	31 Aug. 1956 AD-98865
125	A Low-Altitude Radar System	M. D. Rubin	11 Apr. 1957 AD-147493
126	Phase One of Joint Lincoln Laboratory - Ordnance Corps Tests of T-49 Radar and Computer	J. R. Sandison S. H. Wright R. L. Segal W. J. Wollenberg	7 Mar. 1957 AD-147499
127	A Comparison of Selected ICBM Early-Warning Radar Configurations	G. H. Pettengill D. E. Dustin	13 Aug. 1956 AD-98862
128	A Long-Range Radar Warning System for the Detection of Intercontinental Ballistic Missiles	M. I. Skolnik	15 Aug. 1956 AD-98863
131	An Approach to the Data-Processing Problem for an ICBM Warning System	P. B. Sebring	23 Jan. 1957 AD-110013
140	Status Report - Lincoln Laboratory AICBM Program		2 Jan. 1957 AD-150861
147	An Automatic Pulse-Doppler Radar for Detecting and Tracking Low-Altitude Targets	J. G. Barry	30 Jan. 1957 AD-137713
148	UHF Auroral Observations	S. J. Fricker R. P. Ingalls M. L. Stone S. C. Wang	13 Feb. 1957 AD-137714
149	Clutter-Locked MTI for Shipboard Radar	J. Margolin D. H. Griffin B. H. Labitt	18 Feb. 1957 AD-137715
207	A Method of Pulse Compression Employing Nonlinear Frequency Modulation	E. L. Key E. N. Fowle R. D. Haggarty	13 Aug. 1959 AD-235293
231	Sequential Encoding and Decoding for the Discrete Memoryless Channel	B. Reiffen	12 Aug. 1960 AD-247612
257	Secondary Emission Characteristics of High-Power Microwave-Tube Surfaces	A. Vierstra R. C. Butman	20 Feb. 1962 AD-274554

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294	Photo-Ionized Cloud as Source for Decrease in Backscatter Cross Section of Re-entering Body	E. L. Murphy	17 Jan. 1963 AD-401310
307	The Measurement of Electron Density in the Wake of a Hypervelocity Pellet Over a Six-Magnitude Range	M. Labitt	15 Apr. 1963 AD-407965
351	Beam Pulse Heating	E. Silverman	13 Apr. 1964 AD-443662
402	Scattering of Electromagnetic Waves: A Lincoln Laboratory Symposium	J. W. Meyer G. F. Pippert R. T. Prosser J. Rheinstein S. L. Borison P. C. Fritsch B. Reiffen J. Ruze A. J. Bogush, Jr. T. Hagfors R. D. Kodis J. V. Evans J. H. Chisholm	27 Sept. 1965 AD-487898
403	Effect of Electron Irradiation on Electronic Devices	A. G. Stanley	3 Nov. 1965 AD-489617
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409	Switched-Beam Antenna System for LES-1 and LES-2	R. N. Assaly J. B. Rankin L. J. Ricardi	16 Dec. 1965 AD-489413
410	X-Band Receiving Antenna for LES-4	M. L. Rosenthal	22 Dec. 1965 AD-482651
411	Theory and Design Data for Uniformly Dissipative, Doubly Terminated Bandpass and Lowpass Filters	J. W. Craig	24 Feb. 1966 AD-642747
414	Backscatter from Spheres: Short Pulse View	J. Rheinstein	27 Apr. 1966 AD-642547
415	X-Band Transmitting Antenna for LES-4	J. B. Rankin	28 Apr. 1966 AD-801329
416	Experimental Study of Sub-reflector Support Structures in a Cassegrainian Antenna	F. I. Sheftman	23 Sept. 1966 AD-646225
418	Electronic Instrumentation of the M.I.T. Gamma-Ray Telescope for the Orbiting Solar Observatory	W. G. Schmidt D. H. Galvin, Jr. R. W. Rasche J. K. Roberge F. W. Sarles, Jr.	9 May 1966

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419	Radar Scattering from a Low-Cross-Section Shape	J. H. Pannell	27 May 1966 AD-489778
420	Application of Transversal Equalizer to Radar Receiver with Emphasis on Doppler Sensitivity	R. C. Yost E. B. Smith	23 June 1966 AD-640892
421	Large Aperture Seismic Array Capabilities	P. E. Green, Jr. R. V. Wood, Jr.	12 July 1966 AD-639197
422	Radar Location for Complete Coverage of Representative Threat-Volumes	S. D. Ewing, Jr. D. Caldwell	15 Aug. 1966 AD-644826
424	Mutual Coupling in Array Antennas	J. L. Allen B. L. Diamond	4 Oct. 1966 AD-648153
425	General Relativity and Its Effects on Planetary Orbits and Interplanetary Observations	M. J. Tausner	7 Oct. 1966 AD-650730
426	Microwave Scattering Parameters for New England Rain	R. K. Crane	3 Oct. 1966 AD-647798
428	A Theoretical Analysis and Experimental Confirmation of the Optimally Loaded and Overdriven RF Power Amplifier	D. M. Snider	7 Nov. 1966 AD-647799
429	Theory, Design and Performance of a Ring Circulator	S. D. Ewing, Jr. J. A. Weiss	17 Jan. 1967 AD-650582
430	Millstone Hill Thomson Scatter Results for 1964	J. V. Evans	15 Nov. 1967 AD-668436
431	The Lincoln Experimental Terminal	J. W. Craig W. R. Crowther P. R. Drouilhet, Jr. J. N. Harris F. E. Heart B. H. Hutchinson I. L. Lebow P. G. McHugh B. E. Nichols P. Rosen S. B. Russell J. Tierney	21 Mar. 1967 AD-661577
432	Automatic Satellite Geosynchronization	A. A. Braga-Illa	21 Mar. 1967 AD-815344
433	Radiation Characteristics of Loop Antennas Excited by Transients	A. R. Dion	14 Apr. 1967 AD-656345
435	LCAO Secular Determinant Program	D. Esterling	12 June 1967 AD-659749

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436	Short-Pulse Scattering by a Hemisphere	S. D. Weiner	18 July 1967 AD-658836
437	Decision-Feedback Equalization for Digital Communications Over Dispersive Channels	M. E. Austin	11 Aug. 1967 AD-664926
438	LES-5 Triplexer	A. Sotiropoulos	31 Aug. 1967 AD-823174
440	Design of Transmission Lines and Waveguide Structures Using the Maximum Principle	J. Burchfiel	5 June 1968 AD-675145
441	Spectral Line Interferometry and Interferometer Noise Analysis	A. E. E. Rogers	16 Jan. 1968 AD-666038
442	Time Optimal Control for a Class of Common Random Disturbances	N. P. Smith	2 Feb. 1968 AD-667521
443	Charged Particle Radiation Environment in Synchronous Orbit	A. G. Stanley J. L. Ryan	15 May 1968 AD-677284
444	A Radar Interferometer Study of Venus at 3.8 cm	A. E. E. Rogers T. Hagfors R. A. Brockelman R. P. Ingalls J. I. Levine G. H. Pettengill F. S. Weinstein	14 Feb. 1968 AD-670167
445	Design Studies for a 440-Foot-Diameter Radio and Radar Telescope	H. G. Weiss	20 Feb. 1968 AD-668474
446	A Shallow-Cavity UHF Crossed-Slot Antenna	C. A. Lindberg	8 Mar. 1968 AD-672763
447	Parallel Channels Without Crosstalk	J. Max	9 Apr. 1968 AD-673479
450	The Lincoln Satellite Technology Program Through 1 January 1968 - An Annotated Bibliography	H. Sherman D. C. MacLellan P. Waldron	12 June 1968 AD-679559
451	Antenna System for LES-5	M. E. Devane D. J. Frediani B. F. LaPage M. L. Rosenthal A. Sotiropoulos	18 July 1968 AD-684167
454	Optical Communication Through Multiple-Scattering Media	H. M. Heggestad	22 Nov. 1968

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455	Theory of Active Nonreciprocal Networks	W. M. Libbey	4 Feb. 1969	AD-691435
456	Reflection Properties of Venus at 3.8 cm	R. P. Ingalls R. A. Brockelman J. V. Evans J. I. Levine G. H. Pettengill L. P. Rainville A. E. E. Rogers F. S. Weinstein	6 Sep. 1968	AD-681467
457	The Microwave System of the Haystack Planetary Radar	C. W. Jones	23 Oct. 1968	AD-685696
459	LES-6 Triplexer	D. R. Bold A. Sotiropoulos	2 Dec. 1968	AD-686418
464	Effect of Diffusion on Gain Saturation in CO ₂ Lasers	H. A. Haus C. Freed C. P. Christensen	7 Feb. 1969	AD-689397
465	LES-6 Antenna System	R. N. Assaly M. E. Devane E. F. LaPage M. L. Rosenthal A. Sotiropoulos	10 Mar. 1969	AD-693197

GROUP REPORTS

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1964-29	A Study of Radar Clutter in TRADEX	G. R. Curry	25 May 1964	AD-441068
1965-6	Design Aspects of Minimal-Power Digital Circuitry	W. G. Schmidt D. E. Chace	9 Feb. 1965	AD-612769
1965-12	El Campo Solar Radar Antenna Modification	M. E. Devane	8 Feb. 1965	AD-612150

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1965-20	Analysis of Radiation Effects in Telemetry Circuits	A. G. Stanley	21 July 1965	AD-619387
1965-32	A Generalization of Newtonian Aerodynamic Theory to Include Viscous Effects	H. Schneider	26 July 1965	AD-468972
1965-41	Some Practical Considerations for Reducing the Surface Resistivity of X-Band Components	A. H. Kessler	13 June 1966	AD-635472
1966-12	Lincoln Accelerator Laboratory	C. L. Mack, Jr.	2 Sept. 1966	AD-639962
1966-15	Haystack Pointing System: Digital Equipment Organization	P. D. Smith	10 Oct. 1966	AD-641641
1966-17	High Speed Tunnel Diode Transistor Micrologic Circuits	Y. Cho	20 July 1966	AD-637815
1966-18	Topics on the Calculation of Atmospheric Ionization Following Nuclear Explosions	F. L. Ek	8 Feb. 1966	AD-488430
1966-20	A Concise Representation of Certain Types of Signal Processing in Communications Satellites	J. U. Beusch B. Reiffen	2 Mar. 1966	AD-479434
1966-23	A Computer Signal-Processing Approach for the Shapiro Fourth Test of the General Theory of Relativity	E. Gehrels L. G. Kraft	2 Sept. 1966	AD-639733
1966-24	Haystack Display Translator	S. R. Russell	10 Oct. 1966	AD-640914
1966-26	Solar Plasma Measurements	J. D. McCarron	21 July 1966	AD-637998
1966-32	Cross Sections of Two Independently Observed Randomly Oriented Dipoles	J. C. Fielding	6 July 1966	AD-487439
1966-33	Lincoln Experimental Terminal Timing and Frequency Control	N. L. Daggett	4 Aug. 1966	AD-638198
1966-34	"Matched" Polynomial Least-Squares Fitting and Application to Real-Time Ballistic Coefficient Estimation	H. Schneider	26 July 1966	AD-637669
1966-35	Prediction of Ballistic Cloud Trajectories from Radar Maps	F. C. Schweppé H. K. Knudsen	20 July 1966	AD-487241
1966-38	A Study of the Capability of a LASA to Aid the Identification of a Seismic Source	H. W. Briscoe R. M. Sheppard	11 July 1966	AD-637283

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1966-40	General-Purpose I/O Channel and Interface for Haystack 490 Computer	J. E. Gillis A. F. Dockrey S. B. Russell	10 Oct. 1966	AD-641640
1966-41	The Quality of the Lincoln Calibration Sphere	M. L. Burrows	22 Aug. 1966	AD-638442
1966-44	Anti-Jam Effectiveness and System Complexity	J. Max	15 Aug. 1966	AD-489779
1966-46	Navigation with High-Altitude Satellites: A Study of Ranging Errors	T. J. Goblick, Jr.	26 Aug. 1966	AD-643851
1966-47	A Model of Radar Scattering from the Cone-Sphere	S. D. Weiner	20 Oct. 1966	AD-646853
1966-48	An Investigation of the Parameters Affecting Microwave Breakdown in the Upper Atmosphere	A. B. Gschwendtner	9 Sept. 1966	AD-489843
1966-49	Maximum Likelihood Trajectory Determination from Radar Data	A. R. Warwas S. C. Wang	27 Oct. 1966	AD-642334
1966-50	Signal Processing Characteristics of the Peripheral Auditory System	T. J. Goblick, Jr. R. R. Pfeiffer	30 Sept. 1966	AD-645781
1966-52	Directivity of an Array of Slots on the Surface of a Cylinder	L. J. Ricardi	10 Oct. 1966	AD-641959
1966-53	Survey on Earth Albedo	L. P. Whitehill	11 Oct. 1966	AD-643649
1966-54	A Preliminary Study of Klystron Distortion in a CHIRP Radar System	H. M. Heggestad	28 Dec. 1966	AD-646346
1966-55	Haystack Pointing System: Scan	W. R. Crowther	1 Nov. 1966	AD-643171
1966-56	Haystack Pointing System: Radar Coordinate Correction	C. A. Clarke	24 Oct. 1966	AD-641603
1966-59	Noise Temperature of Airborne Antennas at UHF	G. Ploussios	6 Dec. 1966	AD-644829
1966-61	Autotracking of Satellites from the Ground Through the 8 - 12 μm Atmospheric Window	P. R. Longaker J. H. Dennis R. J. Keyes	7 Dec. 1966	AD-805353
1966-61 Supp. 1	Autotracking of Satellites from the Ground Through the 8 - 12 μm Atmospheric Window	P. R. Longaker J. H. Dennis R. J. Keyes	13 July 1967	AD-819117
1966-63	Coherent Pulse Transmission Through Rain	R. K. Crane	27 Dec. 1966	AD-646623

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1966-64	Observations of Inner and Outer Zone Electrons Since December 1965	J. L. Ryan V. J. Sferrino	28 Dec. 1966	AD-649139
1967-1	Planar Representations of Complex Graphs	R. M. Baeker	6 Feb. 1967	AD-648133
1967-2	Three Fortran Programs That Perform the Cooley-Tukey Transform	N. M. Brenner	28 July 1967	AD-657019
1967-3	FASTABUL (A Fast Automatic STATION Bulletin Program)	P. L. Fleck, Jr.	6 Jan. 1967	AD-646207
1967-4	Magnetic Film Memory Evaporation System	C. G. Ryan	6 Jan. 1967	AD-647209
1967-6	On the Equivalence of Linearized Kalman Filters	M. Athans	11 Jan. 1967	AD-646550
1967-7	Monte Carlo Simulation of the Flow of a Rarefied Gas Around a Cylinder	A. W. Starr	18 Jan. 1967	AD-647124
1967-8	An Approach to Target Tracking	M. Gruber	19 Feb. 1967	AD-654272
1967-9	Vocoded Speech in the Absence of the Laryngeal Frequency	A. J. Goldberg B. Gold, Editor	3 Apr. 1967	AD-651253
1967-10	Operational Low-Power, Low-to High-Frequency Digital Circuit Elements: Refinements, Characteristics and Developments	D. E. Chace	24 Jan. 1967	AD-650779
1967-11	Navigation with High-Altitude Satellites: A Study of Errors in Position Determination	D. L. Snyder	6 Feb. 1967	AD-648828
1967-12	VITAL Compiler - Compiler System Reference Manual	I. F. Mondschein	8 Feb. 1967	AD-649140
1967-13	Revision of the Kwajalein Atmospheric Model	J. E. Salah	8 Feb. 1967	AD-808876
1967-14	Kwajalein Standard Atmosphere	J. E. Salah	14 Feb. 1967	AD-808686
1967-15	A Theorem on Spin-Eigenfunctions	T. A. Kaplan W. H. Kleiner	24 May 1967	AD-652840
1967-16 Rev. 1	Stable Equilibrium Orientation of a Spacecraft Which Contains a Momentum Wheel	J. U. Beusch	10 May 1968	AD-669806
1967-17	Survey of Satellite Communication Antennas	A. R. Dion	18 May 1967	AD-661578

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1967-18	Navigation with High-Altitude Satellites: A Study of the Effects of Satellite-User Geometry on Position Accuracy	C. D. Sullivan	24 Feb. 1967 AD-651863
1967-19	An Associative Processing System for Conventional Digital Computers	P. D. Rovner J. A. Feldman	21 Apr. 1967 AD-655810
1967-20	Electron Irradiation of P-Channel Junction FETs	A. G. Stanley	13 Apr. 1967 AD-651760
1967-21	Wave Optical Aspects of Lorentz Microscopy	M. S. Cohen	10 May 1967 AD-652497
1967-24	Project MAPOLE (Magnetic Dipole Spark Transmitter)	M. P. Fraser	22 May 1967 AD-656706
1967-25	Trajectory Equations of Motion in Radar Polar Coordinates	S. F. Catalano	24 May 1967 AD-652841
1967-26	Design of Seismic Arrays for Efficient On-Line Beamforming	J. Capon R. J. Greenfield R. T. Lacoss	27 June 1967 AD-655142
1967-27	Micropower Error-Correcting Redundant Circuit Design	R. E. McMahon N. B. Childs	23 Aug. 1967 AD-659750
1967-29	Earth Coverage from a Circularly Symmetric Shaped-Beam Antenna on a Synchronous Satellite	J. B. Rankin	27 June 1967 AD-656707
1967-30	Response of Seismic Arrays to Wide-Band Signals	E. J. Kelly	29 June 1967 AD-656344
1967-31	Cooperative Scattering by Dielectric Spheres	R. K. Crane	6 July 1967 AD-657328
1967-33	Electroreflectance Study of Interband Magneto-Optical Transitions in InAs and InSb at 1.5°K	S. B. Groves J. Feinleib C. R. Pidgeon	6 Sept. 1967 AD-658835
1967-34	Identification of Systems in Terms of the Wiener Model	C. R. Arnold	22 Aug. 1967 AD-659159
1967-35	Biased Velocity Estimates Due to Phase-Center Motion	S. L. Borison	27 Aug. 1967 AD-659817
1967-44	Values of LASA Time Station Residuals, Velocity and Azimuth Errors	R. M. Sheppard, Jr.	8 Sept. 1967 AD-662004
1967-45	A Resynchronization Technique for a Sequential Decoder	G. Blustein	24 Oct. 1967 AD-660865

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1967-47	X-Band Cylindrical Lens Antenna	A. Sotiropoulos	26 Oct. 1967	AD-664570
1967-48	A Trajectory Analysis Program (TRAP)	A. Bertolini	29 Sept. 1967	AD-663227
1967-50	Long-Period Signal Processing Results for Large Aperture Seismic Array	J. Capon R. J. Greenfield R. T. Lacoss	15 Nov. 1967	AD-663429
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1968-19	LESTR-2 Telemetry Ground System	J. H. Helfrich	AD-672959
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2355	The Bandwidth of the Abrupt-Junction Varactor-Frequency Doubler	A. I. Grayzel	IEEE Trans. Circuit Theory <u>CT-13</u> , 52 (1966), DDC AD-641001
2466	An Integral Expression for the Log Likelihood Ratio of Two Gaussian Processes	T. S. Pitcher	J. SIAM Appl. Math. <u>14</u> , 228 (1966), DDC AD-642214
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2773	Aural Pulse Compression by Bats and Humans	J. J. G. McCue	J. Acoust. Soc. Am. <u>40</u> , 545 (1966), DDC AD-648764
2774	Generalization of the Ruderman-Kittel-Kasuya-Yosida Interaction for Nonspherical Fermi Surfaces	L. M. Roth H. J. Zeiger T. A. Kaplan	Phys. Rev. <u>149</u> , 519 (1966), DDC AD-648765
2775	The Cutoff Frequency of a Varactor Diode with Variable Series Resistance	A. I. Grayzel	Proc. IEEE (Correspondence) <u>54</u> , 875 (1966), DDC AD-642168
2776	Efficient Visible Lasers of CdS_xSe_{1-x} by Electron-Beam Excitation	C. E. Hurwitz	Appl. Phys. Letters <u>8</u> , 243 (1966), DDC AD-642200
2778	Equilibrium Spin Configuration and Resonance Behavior of $RbMnF_3$	P. H. Cole W. L. Ince	Phys. Rev. <u>150</u> , 377 (1966), DDC AD-648263
2779	Conic Display Generator Using Multiplying Digital-Analog Converters	L. G. Roberts	IEEE Trans. Electron. Computers <u>EC-16</u> , 369 (1967), DDC AD-658796

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2781	Work Function Changes Due to the Chemisorption of Water and Oxygen on Aluminum	E. E. Huber, Jr. C. T. Kirk	<i>Surface Sci. 5</i> , 447 (1966), DDC AD-646492
2782	Recursive, Complex Fourier Analysis for Real-Time Applications	J. M. Halberstein	<i>Proc. IEEE (Correspondence) 54</i> , 903 (1966), DDC AD-642222
2783	Operating Characteristics from Yes-No and Forced-Choice Procedures	A. L. Schulman R. R. Mitchell	<i>J. Acoust. Soc. Am. 40</i> , 473 (1966), DDC AD-642221
2784	Comments on "A Large Signal Analysis Leading to Intermodulation Distortion Prediction in Abrupt Junction Varactor Up-Converters"	A. I. Grayzel	<i>IEEE Trans. Microwave Theory Tech. MTT-15</i> , 183 (1967)
2785	The Earth's Dust Belt: Fact or Fiction?	I. I. Shapiro D. A. Lautman G. Colombo	<i>J. Geophys. Res. 71</i> , 5695 (1966), DDC AD-652115
2786A	Generalized Surface Harmonics	H. E. Moses	<i>Ann. Phys. 41</i> , 166 (1967), DDC AD-651625
2787A	Integration of the Infinitesimal Generators of the Inhomogeneous Lorentz Group and Application to the Transformation of the Wave Function	H. E. Moses	<i>Ann. Phys. 41</i> , 158 (1967), DDC AD-651534
2788	Reduction of the Electromagnetic Vector Potential to the Irreducible Representations of the Inhomogeneous Lorentz Group. II. Quantization of the Electromagnetic Vector Potential in an Angular Momentum Basis	H. E. Moses	<i>Nuovo Cimento 48A</i> , 43 (1967), DDC AD-655314
2790	Finite Temperature Theory for Attenuation of Quasi-Particle Excitations in Real Metals	R. W. Davies	<i>J. Phys. Chem. Solids 28</i> , 1001 (1967)
2793	The ϵ-Entropy and ϵ-Capacity of Certain Time-Varying Channels	R. T. Prosser	<i>J. Math. Anal. Appl. 16</i> , 553 (1966), DDC AD-646472
2794	High-Temperature Expansions - The Classical Heisenberg Model	H. E. Stanley T. A. Kaplan	<i>Phys. Rev. Letters 16</i> , 981 (1966), DDC AD-642220
2795	Radar Ground-Clutter Shields	J. Ruze F. I. Sheftman D. A. Cahlander	<i>Proc. IEEE 54</i> , 1171 (1966), DDC AD-648766

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2797	Radar Observations of Venus at 3.8-cm Wavelength	J. V. Evans R. P. Ingalls L. P. Rainville R. R. Silva	Astron. J. <u>71</u> , 902 (1966), DDC AD-653360
2798	A Model for Shifts in the Gate Turn-On Voltage of Insulated-Gate Field-Effect Devices Induced by Ionizing Radiation	A. G. Stanley	IEEE Trans. Electron Devices <u>ED-14</u> , 134 (1967), DDC AD-654856
2802	Observation of the Interaction of Plasmons with Longitudinal Optical Phonons in GaAs	A. Mooradian G. B. Wright	Phys. Rev. Letters <u>16</u> , 999 (1966), DDC AD-642230
2804	Coherent Pulse Transmission Through Rain	R. K. Crane	IEEE Trans. Antennas Propag. <u>AP-15</u> , 252 (1967), DDC AD-654939
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2806	Laser Properties of a Vapor-Grown Ruby	J. R. O'Connor P. S. Schaffer R. A. Bradbury	Appl. Phys. Letters <u>8</u> , 336 (1966), DDC AD-642171
2807	The Last of the West Ford Dipoles	I. I. Shapiro	Science <u>154</u> , 1445 (1966), DDC AD-653675
2808	Failure-Erasure Circuitry: A Duplicative Technique of Failure-Masking Systems	J. B. Connolly W. G. Schmidt	IEEE Trans. Electron. Computers <u>EC-16</u> , 82 (1967), DDC AD-653674
2809	A Sequential Decoding Technique and Its Realization in the Lincoln Experimental Terminal	I. L. Lebow P. G. McHugh	IEEE Trans. Commun. Tech. <u>COM-15</u> , 477 (1967)
2811	Superconducting Transition Temperature and Electronic Structure in the Pseudobinaries Nb ₃ Al-Nb ₃ Sn and Nb ₃ Sn-Nb ₃ Sb	F. J. Bachner J. B. Goodenough H. C. Gatos	J. Phys. Chem. Solids <u>28</u> , 889 (1967)
2815	The Rotation of the Planet Mercury	G. Colombo I. I. Shapiro	Astrophys. J. <u>145</u> , 296 (1966), DDC AD-642209
2816	Band Structure and Laser Action in Pb _x Sn _{1-x} Te	J. O. Dimmock I. Melngailis A. J. Strauss	Phys. Rev. Letters <u>16</u> , 1193 (1966), DDC AD-642225
2818	Improved Method of Optimizing Longitudinal Magneto-Optical Transmission-Scattering in Thin Magnetic Films	D. O. Smith K. J. Harte	Optica Acta <u>14</u> , 351 (1967), DDC AD-667871

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2822	Electroreflectance in Metals	J. Feinleib	Phys. Rev. Letters <u>16</u> , 1200 (1966), DDC AD-642224
2823B	Directivity of an Array of Slots on the Surface of a Cylinder	L. J. Ricardi	Electron. Eng. <u>39</u> , 578 (1967), DDC AD-668239
2824	Incoherent Source Optical Pumping of Visible and Infrared Semiconductor Lasers	R. J. Phelan, Jr.	Proc. IEEE (Correspondence) <u>54</u> , 1119 (1966), DDC AD-642196
2825	Efficient Coding of Vocoder Channel Signals Using Linear Transformation	W. R. Crowther C. M. Rader	Proc. IEEE (Correspondence) <u>54</u> , 1594 (1966), DDC AD-646471
2827	Efficient Ultraviolet Laser Emission in Electron-Beam-Excited ZnS	C. E. Hurwitz	Appl. Phys. Letters <u>9</u> , 116 (1966), DDC AD-648761
2832	First Order Raman Effect in III-V Compounds	A. Mooradian G. B. Wright	Solid State Commun. <u>4</u> , 431 (1966), DDC AD-649186
2833	Computer Control of the Haystack Antenna	F. E. Heart A. A. Mathiasen	Proc. IEEE <u>54</u> , 1742 (1966). DDC AD-654277
2834	Multidimensional Maximum-Likelihood Processing of a Large Aperture Seismic Array	J. Capon R. J. Greenfield R. J. Kolker	Proc. IEEE <u>55</u> , 192 (1967), DDC AD-651722
2836	Stokes Parameters for 1665-Megacycles-per-Second Emission from OH near Source W3	M. L. Meeks J. A. Ball J. C. Carter R. P. Ingalls	Science <u>153</u> , 978 (1966), DDC AD-644783
2837	Low Temperature Crystallographic and Magnetic Study of LaCoO ₃	N. Menyuk K. Dwight P. M. Raccah	J. Phys. Chem. Solids <u>28</u> , 549 (1967), DDC AD-653689
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2873	Hartree-Fock Theory: Slater Determinants of Minimum Energy	T. A. Kaplan W. H. Kleiner	Phys. Rev. <u>156</u> , 1 (1967), DDC AD-658907
2875	Virial Theorem for the Homogeneous Electron Gas	P. N. Argyres	Phys. Rev. <u>154</u> , 410 (1967), DDC AD-653396
2878	Low Temperature Absolute Reflection Measurements of Small Samples	J. Feinleib B. Feldman	Rev. Sci. Instr. <u>38</u> , 32 (1967), DDC AD-653673
2879	Electrooptic Effect in Trigonal Selenium at $10.6 \mu\text{m}$	M. C. Teich T. A. Kaplan	IEEE J. Quant. Electron. <u>QE-2</u> , 702 (1966), DDC AD-653412
2880	Communications via Several Satellites Using the Lincoln Experimental Terminal	I. L. Lebow	<u>Progress in Astronautics and Aeronautics</u> , Vol. 19 (Academic Press, New York, 1966)
2883	Electron Temperature and Ion Composition in the F_1 Region	J. V. Evans	J. Geophys. Res. <u>72</u> , 3343 (1967), DDC AD-658912
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2885	Some New Power-Frequency Inequalities for Nonlinear Capacitative Harmonic Multipliers	W. L. Black	Proc. IEEE (Correspondence) <u>54</u> , 1995 (1966), DDC AD-651524
2886	Stimulated Brillouin and Raman Scattering in Quartz at 2.1° to 293° Kelvin	P. E. Tannenwald J. B. Thaxter	Science <u>154</u> , 1319 (1966), DDC AD-646489
2887	Spark-Source Mass Spectroscopy	E. B. Owens	Appl. Spectroscopy <u>21</u> , 1 (1967), DDC AD-653414
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2890	Interband Magnetooptical Studies of Semiconductors and Semimetals	B. Lax J. G. Mavroides	Appl. Optics <u>6</u> , 647 (1967), DDC AD-653672
2891	New Phase Transformation in InSb at High Pressure and High Temperature	M. D. Banus M. C. Lavine	J. Appl. Phys. <u>38</u> , 2042 (1967), DDC AD-658915
2892	On the Design of Optimum Radar Waveforms for Clutter Rejection	D. F. DeLong, Jr. E. M. Hofstetter	IEEE Trans. Inform. Theory <u>IT-13</u> , 454 (1967), DDC AD-667873

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2894	Bulk GaAs Negative Conductance Amplifiers	A. L. McWhorter A. G. Foyt	Appl. Phys. Letters <u>9</u> , 300 (1966), DDC AD-648048
2897	Photovoltaic Effect in $Pb_xSn_{1-x}Te$ Diodes	I. Melngailis A. R. Calawa	Appl. Phys. Letters <u>9</u> , 304 (1966), DDC AD-648772
2899	Radar Determination of the Rotations of Venus and Mercury	R. B. Dyce G. H. Pettengill I. I. Shapiro	Astron. J. <u>72</u> , 351 (1967), DDC AD-658774
2900	Quantum Kinetic Equations for Electrons in Random Impurities	P. N. Argyres E. S. Kirkpatrick	Ann. Phys. <u>42</u> , 513 (1967), DDC AD-658909
2901	Ring Circulator Theory, Design, and Performance	S. D. Ewing, Jr. J. A. Weiss	IEEE Trans. Microwave Theory Tech. <u>MTT-15</u> , 623 (1967), DDC AD-667877
2903	Excitation Spectra of Group III Impurities in Germanium Under Uniaxial Stress	D. H. Dickey J. O. Dimmock	J. Phys. Chem. Solids <u>28</u> , 529 (1967), DDC AD-653671
2905	Radar Verification of the Doppler Formula	I. I. Shapiro M. E. Ash M. J. Tausner	Phys. Rev. Letters <u>17</u> , 933 (1966), DDC AD-646487
2906	A High-Speed, Low Power Complementary Flip-Flop	D. E. Chace	Electron. Communicator <u>1</u> , 5 (1966)
2907	High-Temperature Expansions for the Classical Heisenberg Model. II. Zero-Field Susceptibility	H. E. Stanley	Phys. Rev. <u>158</u> , 546 (1967), DDC AD-658766
2908A	The Lincoln Experimental Satellite Program (LES-1, -2, -3, -4)	H. Sherman	J. Spacecraft <u>4</u> , 1448 (1967), DDC AD-663685
2909	High Pressure Study of the First-Order Phase Transition in MnAs	J. B. Goodenough J. A. Kafalas	Phys. Rev. <u>157</u> , 389 (1967), DDC AD-661147
2910	Irreducible Representations of the Rotation Group in Terms of the Axis and Angle of Rotation. II. Orthogonality Relations Between Matrix Elements and Representations of Rotations in the Parameter Space	H. E. Moses	Ann. Phys. <u>42</u> , 343 (1967), DDC AD-654860
2911	Application of Nanosecond Light Pulses to Ballistic Range Measurements	W. G. Clay R. E. Slattery A. J. Ferdinand D. R. Kilcline	AIAA J. <u>5</u> , 364 (1966), DDC AD-653498

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2913	A Simple Model for Mutual Coupling Effects on Patterns for Unequally Spaced Arrays	J. L. Allen	IEEE Trans. Antennas Propag. <u>AP-15</u> , 530 (1967), DDC AD-661151
2914	Asymptotic Theory of Electromagnetic and Acoustic Diffraction by Smooth Convex Surfaces of Variable Curvature	S. Hong	J. Math. Phys. <u>8</u> , 1223 (1967)
2916	Heat Flow in High-Temperature Crystal Growth	T. B. Reed	J. Phys. Chem. Solids Suppl., <u>39</u> (1967)
2917	Reduction of Relativistic Wave Functions to the Irreducible Representations of the Inhomogeneous Lorentz Group. I. Nonzero Mass Components	H. E. Moses	J. Math. Phys. <u>8</u> , 1134 (1967), DDC AD-662289
2918	Semiconductor-to-Metal Transitions in Transition-Metal Compounds	D. Adler J. Feinleib H. Brooks W. Paul	Phys. Rev. <u>155</u> , 851 (1967)
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2921	On the Thermodynamic Properties of Several Solid Phases of the Compound InSb	A. K. Jena M. B. Bever M. D. Banus	Trans. Met. Soc. AIME <u>239</u> , 725 (1967), DDC AD-662173
2922A	A Theoretical Analysis and Experimental Confirmation of the Optimally Loaded and Overdriven RF Power Amplifier	D. M. Snider	IEEE Trans. Electron Devices <u>ED-14</u> , 851 (1967), DDC AD-670764
2923	Diode Lasers of $\text{Pb}_{1-y}\text{Sn}_y\text{Se}$ and $\text{Pb}_{1-x}\text{Sn}_x\text{Te}$	J. F. Butler A. R. Calawa T. C. Harman	Appl. Phys. Letters <u>9</u> , 427 (1966), DDC AD-653367
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2927	Polaron Effects in the Cyclotron Resonance Absorption of InSb	D. H. Dickey E. J. Johnson D. M. Larsen	Phys. Rev. Letters <u>18</u> , 599 (1967), DDC AD-658789
2928A	Temperature-Modulated Reflectance of Gold from 2 to 10 eV	W. J. Scouler	Phys. Rev. Letters <u>18</u> , 445 (1967), DDC AD-655328

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2940	Channel Encoders	L. M. Goodman	Proc. IEEE (Correspondence) 55, 127 (1967), DDC AD-653413
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2942	Observation of Degenerate Stimulated Four-Photon Interaction and Four-Wave Parametric Amplification	R. L. Carman R. Y. Chiao P. L. Kelley	Phys. Rev. Letters 17, 1281 (1966), DDC AD-658792
2943	A Study of the Depolarization of Lunar Radar Echoes	T. Hagfors	Radio Sci. 2, 445 (1967)
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2948	The Electrical Properties and Band Structure of Doped LaInO ₃	D. B. Rogers J. M. Honig J. B. Goodenough	Materials Res. Bull. 2, 223 (1967), DDC AD-652416
2951	Measurement of Multipath Effects in Satellite-Aircraft UHF Link	K. L. Jordan, Jr.	Proc. IEEE (Correspondence) 55, 1117 (1967), DDC AD-658917
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2959	Varactor Multiplier Arrays for Increased Power Handling Capability	D. Parker A. I. Grayzel	Proc. IEEE (Correspondence) 55, 437 (1967), DDC AD-654863
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2962	The GaAs-InSb Graded-Gap Heterojunction	E. D. Hinkley R. H. Rediker	Solid-State Electron. 10, 671 (1967)

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2966	The Insertion Loss of Transmission Lines Used in Matching Networks	L. J. Ricardi	IEEE Trans. Microwave Theory Tech. <u>MTT-16</u> , 189 (1968), DDC AD-671290
2967	Landau Damping of Magneto-plasma Waves for General Closed Fermi Surfaces	A. L. McWhorter J. N. Walpole	Phys. Rev. <u>158</u> , 719 (1967), DDC AD-661149
2968	Nonlocal Effects in Low-Field Helicon Propagation in PbTe	J. N. Walpole A. L. McWhorter	Phys. Rev. <u>158</u> , 708 (1967), DDC AD-661150
2970	Discussion of Paper by F. L. Scarf, "Effect of Coherent Density Fluctuations on the Radar Determination of Total Electron Content"	T. Hagfors	J. Geophys. Res. <u>72</u> , 4595 (1967)
2971	The Negative Gamma Varactor	A. I. Grayzel	Proc. IEEE (Correspondence) <u>55</u> , 469 (1967), DDC AD-655317
2972	A Direct Derivation of the Optimal Linear Filter Using the Maximum Principle	M. Athans E. Tse	IEEE Trans. Automat. Control <u>AC-12</u> , 690 (1967), DDC AD-673596
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2981	Reduction of Relativistic Wave-functions to the Irreducible Representations of the Inhomogeneous Lorentz Group. II. Zero Mass Components	H. E. Moses	J. Math. Phys. <u>9</u> , 16 (1968), DDC AD-673600
2982	On Finite Pulsewidth Sampling	O. A. Z. Leneman	IEEE Trans. Commun. Tech. <u>COM-15</u> , 718 (1967), DDC AD-662174
2983	An Analog Comparator as a Pseudo-Light Pen for Computer Displays	K. H. Konkle	IEEE Trans. Computers <u>C-17</u> , 54 (1968), DDC AD-670770
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2987	Extraterrestrial Life	W. B. Smith	Science <u>155</u> , 852 (1967), DDC AD-653411
2988	Raman Scattering from Donor and Acceptor Impurities in Silicon	G. B. Wright A. Mooradian	Phys. Rev. Letters <u>18</u> , 608 (1967), DDC AD-653363
2989	A Thermodynamic Investigation of the Compounds In_3SbTe_2 , InSb and InTe	A. K. Jena M. B. Bever M. D. Banus	Trans. Met. Soc. AIME <u>239</u> , 1232 (1967)
2990	Note on "Secant Correction for Tracking Pedestals"	F. L. Bacchialoni	IEEE Trans. Automat. Control <u>AC-12</u> , 475 (1967), DDC AD-663689
2991	Effect of Electron Irradiation on Carrier Mobilities in Inversion Layers of Insulated Gate Field Transistors	A. G. Stanley	IEEE Trans. Nuclear Sci. <u>NS-14</u> , 256 (1967), DDC AD-668184
2992	Correlation Function and Power Spectrum of Randomly Shaped Pulse Trains	O. A. Z. Leneman	IEEE Trans. Aerospace Electron. Syst. <u>AES-3</u> , 774 (1967), DDC AD-662172
2993	Magnetic and Structural Study of the Spinel $MnYb_2S_4$	J. M. Longo P. M. Raccah	Materials Res. Bull. <u>2</u> , 541 (1967), DDC AD-657032
2994A	Stability Measurements of CO_2-N_2-He Lasers at $10.6 \mu m$ Wavelength	C. Freed	IEEE J. Quant. Electron. <u>QE-3</u> , 203 (1967), DDC AD-658783
2996	Automatic Channel Equalization Algorithm	C. W. Niessen	Proc. IEEE (Correspondence) <u>55</u> , 698 (1967)
2997	Arc Techniques for Materials Research	T. B. Reed	Materials Res. Bull. <u>2</u> , 349 (1967)

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2999	Effects of Parameter Quantization on the Poles of a Digital Filter	C. M. Rader B. Gold	Proc. IEEE (Correspondence) <u>55</u> , 688 (1967), DDC AD-658784
3002	Redistribution of Electrons in Secondary Emission Devices	A. A. Braga-Illa	Alta Frequenza <u>36</u> , No. 5 (1967)
3003	Van Allen Belt Simulation	C. L. Mack	J. Spacecraft <u>4</u> , 819 (1967), DDC AD-658780
3004	The Oxidation of Aluminum Films in Low-Pressure Oxygen Atmospheres	C. T. Kirk, Jr. E. E. Huber, Jr.	Surface Sci. <u>9</u> , 217 (1968), DDC AD-668306
3006	City Noise and Its Effect Upon Airborne Antenna Noise Temperatures at UHF	G. Ploussios	IEEE Trans. Aerospace Electron. Syst. <u>AES-4</u> , 41 (1968), DDC AD-668192
3011A	New Method for the Detection of Light Deflection by Solar Gravity	I. I. Shapiro	Science <u>157</u> , 806 (1967), DDC AD-663681
3013	Iterative Sequential Decoding	I. G. Stiglitz	Accepted IEEE Trans. Inform. Theory
3018	Growth of Single Ti ₂ O ₃ Crystals from the Melt	T. B. Reed R. E. Fahey J. M. Honig	Materials Res. Bull. <u>2</u> , 561 (1967)
3019	Scattering by Edges: The Hemisphere	S. D. Weiner	IEEE Trans. Antennas Propag. <u>AP-15</u> , 709 (1967), DDC AD-664442
3020	Mounted Diode Equivalent Circuits	W. J. Getsinger	IEEE Trans. Microwave Theory Tech. <u>MTT-15</u> , 650 (1967), DDC AD-667874
3021	Localized versus Collective d Electrons and Néel Temperatures in Perovskite and Perovskite-Related Structures	J. B. Goodenough	Phys. Rev. <u>164</u> , 785 (1967), DDC AD-668715
3022	A Coding Theorem for Time-Discrete Analog Data Sources	T. J. Goblick, Jr.	IEEE Trans. Inform. Theory <u>IT-15</u> , 401 (1969), DDC AD-693665
3023	Laser Emission from Electron Beam Excited ZnTe	C. E. Hurwitz	IEEE J. Quant. Electron. <u>QE-3</u> , 333 (1967), DDC AD-664445
3024	Plasmas for High Temperature Chemistry	T. B. Reed	<u>Advances in High Temperature Chemistry</u> , Vol. 1 (Academic Press, New York, 1967)
3025	InSb-GaAsP Infrared to Visible Light Converter	R. J. Phelan, Jr.	Proc. IEEE (Correspondence) <u>55</u> , 1501 (1967), DDC AD-662175

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3026	Stimulated Raman Scattering in an Infrared Active, Nontotally Symmetric Vibration of λ -Quartz	P. E. Tannenwald D. L. Weinberg	IEEE J. Quant. Electron. <u>QE-3</u> , 334 (1967), DDC AD-664447
3027	Experimental Results of a Frequency Doubler Using a Varactor Array	D. Parker A. I. Grayzel	Proc. IEEE (Correspondence) <u>55</u> , 715 (1967), DDC AD-658769
3028	New Variational Approach in the Transport Theory of the Coupled Electron-Phonon System	R. W. Davies	Phys. Rev. <u>162</u> , 621 (1967), DDC AD-664448
3029	Resolution and Frequency Response in Secondary Emission Devices	A. A. Braga-Ilia	IEEE Trans. Electron Devices <u>ED-14</u> , 829 (1967)
3031	Backscatter from Spheres: A Short Pulse View	J. Rheinstein	IEEE Trans. Antennas Propag. <u>AP-16</u> , 89 (1968), DDC AD-670444
3032	Adaptive Combining of Wide-band Array Data for Optimal Reception	R. T. Lacoss	IEEE Trans. Geosci. Electron. <u>GE-6</u> , 78 (1968), DDC AD-673599
3033	Observations of OH Emission in the H II Region W3 with a 74400 λ Interferometer	J. M. Moran A. H. Barrett A. E. E. Rogers B. F. Burke B. Zuckerman H. Penfield M. L. Meeks	Astrophys. J. <u>148</u> , L69 (1967), DDC AD-652914
3038	Long-Term Operation of a Sealed CO ₂ Laser	R. J. Carbone	IEEE J. Quant. Electron. <u>QE-3</u> , 373 (1967), DDC AD-668195
3039	Wave-Optical Aspects of Lorentz Microscopy	M. S. Cohen	J. Appl. Phys. <u>38</u> , 4966 (1967), DDC AD-668727
3041A	Design of Mutually Matching Multiple-Varactor Array for Power	D. D. Tang	Proc. IEEE (Correspondence) <u>55</u> , 1756 (1967), DDC AD-663686
3044	Optical Properties of the Metal ReO ₃ from 0.1 to 22 eV	J. Feinleib W. J. Scouller A. Ferretti	Phys. Rev. <u>165</u> , 765 (1968), DDC AD-668716
3046A	Night Sky Photometry of [OI] λ 5577 and λ 6300 Inside the Southern Auroral Zone	M. A. Gordon	Planet. Space Sci. <u>16</u> , 297 (1968)
3047	Magnetic Films and Optics in Computer Memories	D. O. Smith	IEEE Trans. Magnetics <u>MAG-3</u> , 433 (1967), DDC AD-663682
3048	Performance Characteristics of Thermomagnetic Devices Involving Graded Mass and Gap. I. Generators	J. M. Honig B. Lax	J. Appl. Phys. <u>39</u> , 3549 (1968), DDC AD-678983

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3050	Ferrite-Metal Thermal Conductances by a Transient Technique	S. D. Ewing, Jr.	IEEE Trans. Parts, Materials & Packaging <u>PMP-3</u> , 142 (1967), DDC AD-670451
3051	Intermodulation Products Generated by a p-i-n Diode Switch	R. L. Sicotte R. N. Assaly	Proc. IEEE (Letters) <u>56</u> , 74 (1968), DDC AD-668721
3052	Low-Energy Interband Transitions and Band Structure in Nickel	J. Hanus J. Feinleib W. J. Scouller	Phys. Rev. Letters <u>19</u> , 16 (1967), DDC AD-658919
3053	Solid-State RF Noise Source	A. J. Yakutis	Proc. IEEE (Letters) <u>56</u> , 228 (1968), DDC AD-670442
3054	Atmospheric Measurements at Kwajalein Using Hypersonic Spheres	J. E. Salah	J. Geophys. Res. <u>72</u> , 5389 (1967), DDC AD-663687
3056	Systems for Compressing the Bandwidth of Speech	B. Gold C. M. Rader	IEEE Trans. Audio Electroacoust. <u>AU-15</u> , 131 (1967), DDC AD-670450
3057	Resonance Rotation of Venus	I. I. Shapiro	Science <u>157</u> , 423 (1967), DDC AD-661145
3058	Proposal for a Magnetic-Film Memory Accessed by Combined Photon and Electron Beams	D. O. Smith	IEEE Trans. Magnetics <u>MAG-3</u> , 593 (1967), DDC AD-670776
3060	Polarization and Intensity of Raman Scattering from Plasmons and Phonons in Gallium Arsenide	A. Mooradian A. L. McWhorter	Phys. Rev. Letters <u>19</u> , 849 (1967), DDC AD-668193
3061	Phase Measurement Accuracy with Modulated Sounding Signals	D. Arnstein	IEEE Trans. Commun. Tech. <u>COM-16</u> , 419 (1968)
3062	On the Measurement of a Bifilar Complementary Helical Antenna	P. R. Wu	IEEE Trans. Antennas Propag. <u>AP-15</u> , 700 (1967)
3063	Books and Conference Proceedings	K. J. Harte D. O. Smith	<u>Magnetism and Magnetic Materials Digest</u> (Academic, New York, 1967)
3064	Observation of the 94 α and 148 δ Hydrogen and 94 α Helium Emission Lines in the Orion Nebula	M. A. Gordon M. L. Meeks	Astrophys. J. <u>149</u> , L21 (1967), DDC AD-658911
3065	Self-Steepening of Light Pulses	F. DeMartini C. H. Townes T. K. Gustafson P. L. Kelley	Phys. Rev. <u>164</u> , 312 (1967), DDC AD-668731

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3066	Magnetic Interactions and Spiral Ground States in Spinels, with Application to $ZnCr_2Se_4$	K. Dwight N. Menyuk	Phys. Rev. <u>163</u> , 435 (1967), DDC AD-668194
3068	Theory of the Magnetic Properties of the Ilmenites $MTiO_3$	J. B. Goodenough J. J. Stickler	Phys. Rev. <u>164</u> , 768 (1967), DDC AD-668712
3069	Magnetic Resonance and Susceptibility of Several Ilmenite Powders	J. J. Stickler S. Kern A. Wold G. S. Heller	Phys. Rev. <u>164</u> , 765 (1967), DDC AD-668729
3070	Tetrahedral-Site Copper in Chalcogenide Spinels	J. B. Goodenough	Solid State Commun. <u>5</u> , 577 (1967), DDC AD-658027
3071	Short-Period Signal Processing Results for the Large Aperture Seismic Array	J. Capon R. J. Greenfield R. J. Kolker R. T. Lacoss	Geophysics <u>33</u> , 452 (1968), DDC AD-674830
3073	Short-Pulse Scattering by a Cone - Direct and Inverse	S. Hong S. L. Borison	IEEE Trans. Antennas Propag. <u>AP-16</u> , 98 (1968), DDC AD-670763
3074	A 10.6-Micron Four-Port Circulator Using Free Carrier Rotation in InSb	J. H. Dennis	IEEE J. Quant. Electron. <u>QE-3</u> , 416 (1967), DDC AD-668728
3076	Spark Source Mass Spectroscopy	E. B. Owens	<u>McGraw-Hill Yearbook of Science and Technology</u> (1968)
3078	Infrared Heterodyne Detection	M. C. Teich	Proc. IEEE <u>56</u> , 37 (1968), DDC AD-668713
3080	Current Runaway and Avalanche Effects in n-CdTe	M. R. Oliver A. L. McWhorter A. G. Foyt	Appl. Phys. Letters <u>11</u> , 111 (1967), DDC AD-662292
3082	Symmetry of the Ground Level of a Hamiltonian	W. H. Kleiner T. A. Kaplan	J. Math. Phys. <u>10</u> , 236 (1969), DDC AD-688031
3083	Changes in the Work Function of Aluminum During and Following Low Pressure Oxidation at Room Temperature	E. E. Huber, Jr. C. T. Kirk, Jr.	Surface Sci. <u>8</u> , 458 (1967)
3085	Observation of Exciton Fine Structure in the Interband Magnetoabsorption of InSb and Germanium	E. J. Johnson	Phys. Rev. Letters <u>19</u> , 352 (1967), DDC AD-662293
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| 3097 | Perturbation Calculation of Band-Structure Effects in Low-Field Helicon Propagation | A. L. McWhorter
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3116	Aperture Synthesis in Radar Astronomy and Some Applications to Lunar and Planetary Studies	T. Hagfors B. Nanni K. Stone	Radio Sci. <u>3</u> , 491 (1968)
3119	Tellurium Vapor Pressure and Optical Density at 370-615°C	R. F. Brebrick	J. Phys. Chem. <u>72</u> , 1032 (1968), DDC AD-670793
3120	Gas-Density Fluctuations in the Wakes from Hypersonic Spheres	J. Herrmann W. G. Clay R. E. Slattery	Phys. Fluids <u>11</u> , 954 (1968), DDC AD-673463
3121	Ferromagnetism in Films	M. S. Cohen	Chap. 10, Thin Film Phenomena (McGraw-Hill, New York, 1969)
3126	Electron-Hole Pair Effects on Landau Levels in InSb	D. M. Larsen	Phys. Rev. Letters <u>19</u> , 1128 (1967), DDC AD-669218
3128	Theory of the Radar Determination of Planetary Rotations	I. I. Shapiro	Astron. J. <u>72</u> , 1309 (1967), DDC AD-670441
3132	Reduction of Reducible Representations of the Poincaré Group to Standard Helicity Representations	H. E. Moses	J. Math. Phys. <u>9</u> , 2039 (1968), DDC AD-693702
3134A	Epitaxial Gallium Arsenide for High-Efficiency Gunn Oscillators	C. M. Wolfe A. G. Foyt W. T. Lindley	Electrochem. Technol. <u>6</u> , 208 (1968), DDC AD-673592
3136	A High-Power Waveguide Tuner	C. E. Muehe	IEEE Trans. Microwave Theory Tech. <u>MTT-16</u> , 882 (1968), DDC AD-685689
3137	Metallurgical and Electronic Properties of $Pb_{4-x}Sn_xTe$, $Pb_{4-x}Sn_xSe$, and Other IV-VI Alloys	A. J. Strauss	Trans. Met. Soc. AIME <u>242</u> , 354 (1968), DDC AD-678982
3138	Sunrise Behavior of the F Layer at Midlatitudes	J. V. Evans	J. Geophys. Res. <u>73</u> , 3489 (1968), DDC AD-673605
3139	Evidence for Electron-TO-Phonon Interaction in InSb	D. H. Dickey D. M. Larsen	Phys. Rev. Letters <u>20</u> , 65 (1968), DDC AD-669206
3140	Crystal Growth, Annealing, and Diffusion of Lead-Tin Chalcogenides	A. R. Calawa T. C. Harman M. C. Finn P. Youtz	Trans. Met. Soc. AIME <u>242</u> , 374 (1968), DDC AD-678986
3141	A Radar Study of the Lunar Crater Tycho at 3.8-cm and 70-cm Wavelengths	G. H. Pettengill T. W. Thompson	Icarus <u>8</u> , 457 (1968)

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3143	Use of Crossed Cylinder Lens in Photographic Lens Evaluation	B. Howland	Appl. Optics <u>7</u> , 1587 (1968), DDC AD-677855
3145	Observations of Galactic OII Emission	J. A. Ball M. L. Meeks	Astrophys. J. <u>153</u> , 577 (1968), DDC AD-677846
3146	Resonant Cavity Measurements of Ionized Wakes	W. M. Kornegay	IEEE Trans. Aerospace Electron. Syst. <u>AES-4</u> , 181 (1968), DDC AD-671291
3147	Range Contamination and Its Effect on Measurements	R. E. Slattery W. G. Clay W. C. Worthington	IEEE Trans. Aerospace Electron. Syst. <u>AES-4</u> , 187 (1968), DDC AD-671285
3148	Imaging and Storage with a Uniform MOS Structure	R. J. Phelan, Jr. J. O. Dimmock	Appl. Phys. Letters <u>11</u> , 359 (1967), DDC AD-669211
3149	Magnon-Phonon Coupling in Metallic Films	R. Weber	Phys. Rev. <u>169</u> , 451 (1968), DDC AD-673598
3150	Spin-Wave Resonance	R. Weber	IEEE Trans. Magnetics <u>MAG-4</u> , 28 (1968), DDC AD-670788
3153	Variations in the Radar Cross Section of Venus	J. V. Evans	Astron. J. <u>73</u> , 125 (1968), DDC AD-673462
3154	Magnetic Ordering and the Electronic Properties of the Heavy Rare-Earth Metals	R. E. Watson A. J. Freeman J. O. Dimmock	Phys. Rev. <u>167</u> , 497 (1968)
3155	Analysis of Tellurides of Lead and Tin by Automatic Titrations	J. C. Cornwell K. L. Cheng	Anal. Chim. Acta <u>42</u> , 189 (1968), DDC AD-674786
3156	Critical Properties of Isotropically Interacting Classical Spins Constrained to a Plane	H. E. Stanley	Phys. Rev. Letters <u>20</u> , 150 (1968), DDC AD-669213
3158	Automatic Satellite Station-Keeping	A. A. Braga-Illa	J. Spacecraft <u>6</u> , 430 (1969)
3159	Utilization of Contextural Constraints in Automatic Speech Recognition	R. Alter	IEEE Trans. Audio Electroacoust. <u>AU-16</u> , 6 (1968), DDC AD-673464
3160	Origin of the Crystal Field in Ti ³⁺ -Substituted Alums	G. F. Dionne J. A. MacKinnon	Phys. Rev. <u>172</u> , 325 (1968), DDC AD-678985
3161	Growth of Single Crystals of ZnTe and ZnTe _{1-x} Se _x by Temperature Gradient Solution Zoning	J. Steininger R. England	Trans. Met. Soc. AIME <u>242</u> , 444 (1968), DDC AD-678981
3162	Design and Short-Term Stability of Single-Frequency CO ₂ Lasers	C. Freed	IEEE J. Quant. Electron. <u>QE-4</u> , 404 (1968), DDC AD-678987

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3164	Short-Pulse Scattering by a Long Wire	S. Hong S. L. Borison D. P. Ford	IEEE Trans. Antennas Propag. <u>AP-16</u> , 338 (1968), DDC AD-674789
3165	Rotation of Venus	I. I. Shapiro	Science <u>159</u> , 1124 (1968), DDC AD-670446
3166	Recent Developments in Lorentz Electron Microscopy	M. S. Cohen	IEEE Trans. Magnetics <u>MAG-4</u> , 48 (1968), DDC AD-670790
3168	Discrepancies Between Radar Data and the Lunar Ephemeris	C. R. Smith G. H. Pettengill I. I. Shapiro F. S. Weinstein	Science <u>160</u> , 876 (1968), DDC AD-685690
3169	Intense Mercury-Vapor Green-Band Emission	R. J. Carbone M. M. Litvak	J. Appl. Phys. <u>39</u> , 2413 (1968), DDC AD-673593
3171	Adaptive Equalizer for Pulse Transmission	C. W. Niessen D. K. Willim	Accepted IEEE Trans. Commun. Technol.
3172	Bistatic Short-Pulse Scattering by a Hemisphere	S. D. Weiner	IEEE Trans. Antennas Propag. <u>AP-16</u> , 371 (1968), DDC AD-674828
3173A	Statistical Thermodynamics of Nonstoichiometry in Nonmetallic Binary Compounds	R. F. Brebrick	J. Solid State Chem. <u>1</u> , 88 (1969)
3174	Quartz Raman Laser	P. E. Tannenwald F. H. Perry	Laser Focus <u>3</u> , 17 (1967)
3176	Dependence of Critical Properties on Dimensionality of Spins	H. E. Stanley	Phys. Rev. Letters <u>20</u> , 589 (1968), DDC AD-670762
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3179	The Effect of Surface Impedance Variation on Surface Wave Propagation Along a Rod Waveguide	G. N. Tsandoulas	IEEE Trans. Microwave Theory Tech. <u>MTT-16</u> , 886 (1968), DDC AD-685691
3183	Radar Astronomy	G. H. Pettengill	Accepted Radar Handbook (McGraw-Hill, New York)
3185	Self-Trapping in Media with Saturation of the Nonlinear Index	T. K. Gustafson P. L. Kelley R. Y. Chiao R. G. Brewer	Appl. Phys. Letters <u>12</u> , 165 (1968), DDC AD-670789
3186	Light Scattering from Single-Particle Electron Excitations in Semiconductors	A. Mooradian	Phys. Rev. Letters <u>20</u> , 1102 (1968), DDC AD-671287

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3187	Isotope Effect in Superconducting Rhenium	E. Maxwell M. Strongin T. B. Reed	Phys. Rev. <u>166</u> , 457 (1968)
3190	Surface Potential of a Free Electron Metal in the RPA	R. W. Davies	Surface Sci. <u>11</u> , 419 (1968), DDC AD-679340
3191	Continuous Operation of a Long-Lived CO ₂ Laser Tube	R. J. Carbone	IEEE J. Quant. Electron. <u>QE-4</u> , 102 (1968), DDC AD-673595
3192	Spin-Orbit-Coupling Effects in Transition-Metal Compounds	J. B. Goodenough	Phys. Rev. <u>171</u> , 466 (1968), DDC AD-677856
3193	Long-Period Signal Processing Results for the Large Aperture Seismic Array	J. Capon R. J. Greenfield R. T. Lacoss	Geophysics <u>34</u> , 305 (1969)
3194	Ferromagnetic Properties of Films	M. S. Cohen	Accepted <u>Handbook of Thin Film Technology</u> (McGraw-Hill, New York)
3195	Electrical Properties of Ti ₂ O ₃ Single Crystals	J. M. Honig T. B. Reed	Phys. Rev. <u>174</u> , 1020 (1968), DDC AD-685692
3196	Comments on "Standing Spin-Wave Resonance in 'Flash-Evaporated' Permalloy Films"	P. E. Tannenwald R. Weber	Phys. Rev. Letters <u>20</u> , 918 (1968), DDC AD-670638
3197	ReO ₃ Band Structure in the Tight-Binding Approximation	J. M. Honig J. O. Dimmock W. H. Kleiner	J. Chem. Phys. <u>50</u> , 5232 (1969), DDC AD-694140
3198	Absorption of Radar Signals by the Atmosphere of Venus	J. V. Evans R. P. Ingalls	J. Atmos. Sci. <u>25</u> , 555 (1968), DDC AD-678988
3199	The 18-cm Flux of the Unresolved Component of 3C 273	J. M. Moran B. F. Burke A. H. Barrett A. E. E. Rogers J. C. Carter J. A. Ball D. D. Cudaback	Astrophys. J. <u>151</u> , L99 (1968), DDC AD-670636
3205	Orbit Determination from the Satellite	A. A. Braga-Illa	J. Spacecraft <u>6</u> , 232 (1969)
3206	Partial Pressure of Se ₂ (g) in Selenium Vapor	R. F. Brebrick	J. Chem. Phys. <u>48</u> , 5741 (1968), DDC AD-681588
3207	Planetary Radar Astronomy	I. I. Shapiro	IEEE Spectrum <u>5</u> , No. 3, 70 (1968); <u>Moon and Planets</u> (North-Holland, Amsterdam, 1967), DDC AD-655315
3208A	Improved Ferrimagnetic Single Crystal Sphere Orienter	G. F. Dionne P. S. Crocker J. F. Smith	Rev. Sci. Instr. <u>39</u> , 1759 (1968), DDC AD-685693

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3210	Si-Te System: Partial Pressures of Te ₂ and SiTe and Thermo-dynamic Properties from Optical Density of the Vapor Phase	R. F. Brebrick	J. Chem. Phys. <u>49</u> , 2584 (1968), DDC AD-688551
3211	Methods for Improving the Signal-to-Noise Ratio of Photon and Electron Beam Accessed Magnetic-Film Memory Systems	D. O. Smith	IEEE Trans. Magnetics <u>MAG-4</u> , 634 (1968), DDC AD-688567
3213	Time Dependence in the Thermal Blooming of Laser Beams	R. L. Carman P. L. Kelley	Appl. Phys. Letters <u>12</u> , 241 (1968), DDC AD-671283
3214	Indirect Experimental Evidence for the Existence of Hall and Pedersen Currents in the Auroral E Region	R. E. Newell W. G. Abel	Nature <u>218</u> , 454 (1968), DDC AD-673602
3215	High-Power, Microwave Power Combiner Using a Series-Parallel Array of Diodes	W. J. Getsinger	Proc. IEEE (Letters) <u>56</u> , 1217 (1968), DDC AD-681585
3217	A Useful Form of the Barankin Lower Bound and Its Application to PPM Threshold Analysis	R. J. McAulay L. P. Seidman	IEEE Trans. Inform. Theory <u>IT-15</u> , 273 (1969), DDC AD-692978
3218	Band Model for Transition-Metal Chalcogenides Having Layer Structures with Occupied Trigonal-Bipyramidal Sites	J. B. Goodenough	Materials Res. Bull. <u>3</u> , 409 (1968), DDC AD-671274
3219	Tuning of PbSe Lasers by Hydrostatic Pressure from 8 to 22 μ	J. M. Besson A. R. Calawa W. Paul	Phys. Rev. <u>173</u> , 699 (1968), DDC AD-681626
3220	Type Conversion and p-n Junctions in n-CdTe Produced by Ion Implantation	J. P. Donnelly A. G. Foyt E. D. Hinkley W. T. Lindley J. O. Dimmock	Appl. Phys. Letters <u>12</u> , 303 (1968), DDC AD-673606
3223	Upper and Lower Bounds for the Intermediate-Coupling Polaron Ground-State Energy	D. M. Larsen	Phys. Rev. <u>172</u> , 967 (1968), DDC AD-681584
3225	Tri-Arc Furnace for Czochralski Growth with a Cold Crucible	T. B. Reed E. R. Pollard	J. Cryst. Growth <u>2</u> , 243 (1968), DDC AD-681586
3226	Hot-Electron Transport in Al-Al ₂ O ₃ Triodes Produced by Plasma Oxidation	E. E. Huber, Jr. F. L. Johnston, Jr. C. T. Kirk, Jr.	J. Appl. Phys. <u>39</u> , 5104 (1968), DDC AD-688552
3227	Radiation from Elliptic Current Rings	G. N. Tsandoulas	IEEE Trans. Antenna Propag. <u>AP-17</u> , 31 (1969), DDC AD-692976
3230	Linear-k Valence-Band Splitting in InSb	C. R. Pidgeon S. H. Groves	Phys. Rev. Letters <u>20</u> , 1003 (1968), DDC AD-670787

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3231	A Generalized Approach to the Analysis of Infinite Planar Array Antennas	B. L. Diamond	Proc. IEEE <u>56</u> , 1837 (1968), DDC AD-688032
3233	The Feasibility of Locating Waveguide Arcs by Sound Ranging	A. Browne	IEEE Trans. Microwave Theory Tech. <u>MTT-16</u> , 894 (1968)
3235	Discrete Fourier Transforms When the Number of Data Samples Is Prime	C. M. Rader	Proc. IEEE (Letters) <u>56</u> , 1107 (1968), DDC AD-677950
3236	Estimation of Seismic Noise Structure Using Arrays	R. T. Lacoss E. J. Kelly M. N. Toksoz	Geophysics <u>34</u> , 21 (1969), DDC AD-688564
3237	Observation of Interband Transitions in Arsenic	M. Maltz M. S. Dresselhaus	Phys. Rev. Letters <u>20</u> , 919 (1968), DDC AD-671289
3238	Magnetic Devices	J. I. Raffel	Accepted <u>Handbook of Thin Film Technology</u> (McGraw-Hill, New York)
3239	Copper-Doped Germanium Detectors	T. M. Quist	Proc. IEEE (Letters) <u>56</u> , 1212 (1968), DDC AD-681590
3240	Long-Wavelength Infrared Pb _{1-x} Sn _x Te Diode Lasers	J. F. Butler T. C. Harman	Appl. Phys. Letters <u>12</u> , 347 (1968), DDC AD-673601
3241	A Concise Method for Reducing Photographic Spectrograph Calibrations	L. A. Jacobson	Appl. Optics <u>7</u> , 2210 (1968), DDC AD-688566
3242	Nonlinear Filtering of Multiplied and Convolved Signals	A. V. Oppenheim R. W. Schafer T. G. Stockham	Proc. IEEE <u>56</u> , 1264 (1968)
3243	Fourth Test of General Relativity: Preliminary Results	I. I. Shapiro G. H. Pettengill M. E. Ash M. L. Stone W. B. Smith R. P. Ingalls R. A. Brockelman	Phys. Rev. Letters <u>20</u> , 1265 (1968), DDC AD-673608
3245	The Case for the Radar Radius of Venus	M. E. Ash D. B. Campbell R. B. Dyce R. P. Ingalls R. Jurgens G. H. Pettengill I. I. Shapiro M. A. Slade W. B. Smith T. W. Thompson	Science <u>160</u> , 985 (1968); J. Atmos. Sci. <u>25</u> , 560 (1968), DDC AD-677724
3247	Surface Tolerance of a Radar Calibration Sphere	M. L. Burrows	IEEE Trans. Antennas Propag. <u>AP-16</u> , 718 (1968), DDC AD-688565

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3249	Effect of Pressure on the Structure and Magnetic Properties of RbNiF ₃	J. A. Kafalas J. M. Longo	Materials Res. Bull. 3, 501 (1968), DDC AD-674785
3251	Detection and Parameter Estimation in an Amplitude-Comparison Monopulse Radar	E. M. Hofstetter D. F. DeLong	IEEE Trans. Inform. Theory IT-15, 22 (1969), DDC AD-689885
3253	Cone Tip Scattering: Endfire Region	S. D. Weiner	IEEE Trans. Antennas Propag. AP-17, 78 (1969), DDC AD-692971
3255	Intermediate-Coupling Polaron Effective Mass	D. M. Larsen	Phys. Rev. 174, 1046 (1968), DDC AD-689021
3256	Location of Electron and Hole Carriers in Graphite from Laser Magnetoreflection Data	P. R. Schroeder M. S. Dresselhaus A. Javan	Phys. Rev. Letters 20, 1292 (1968), DDC AD-673603
3257	A Map of M-42 and M-43 at a Wavelength of 1.94 CM	M. A. Gordon	Australian J. Phys. 22, 201 (1969), DDC AD-692975
3258	An Electromagnetic Attitude Control System for a Synchronous Satellite	W. L. Black B. Howland E. A. Vrablik	J. Spacecraft 6, 795 (1969)
3259	The Structure of the OH Source in W3	J. M. Moran B. F. Burke A. H. Barrett A. E. E. Rogers J. C. Carter J. A. Ball D. D. Cudaback	Astrophys. J. 152, L97 (1968), DDC AD-670637
3260	Band Antiferromagnetism and the New Perovskite CaCrO ₃	J. B. Goodenough J. M. Longo J. A. Kafalas	Materials Res. Bull. 3, 471 (1968), DDC AD-674792
3262	The LEAP Language and Data Structure	P. D. Rovner J. A. Feldman	Accepted Commun. ACM
3263	Classification of OH Radio Emission Sources	J. A. Ball D. H. Staelin	Astrophys. J. 153, L41 (1968), DDC AD-674787
3264	Magneto-Optical Properties	J. G. Mavroides	Accepted <u>Optical Properties of Solids</u> , F. Abeles, Ed. (North-Holland, Amsterdam)
3266	Growth of CdSe Single Crystals by Temperature Gradient Solution Zoning in Excess Se	J. M. Steininger	Materials Res. Bull. 3, 595 (1968), DDC AD-674790
3267	Spherical Model as the Limit of Infinite Spin Dimensionality	H. E. Stanley	Phys. Rev. 176, 718 (1968), DDC AD-688035

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3268	Measurements of the Afternoon Radio Aurora at 1295 MHz	W. G. Abel R. E. Newell	J. Geophys. Res. <u>74</u> , 231 (1969), DDC AD-688553
3269	Diagnosis of Single-Gate Failures in Combinational Circuits	G. D. Hornbuckle R. N. Spann	IEEE Trans. Computers <u>C-18</u> , 216 (1969)
3270	Microwave Acoustic Amplification in n-InSb at 9 GHz	K. W. Nill	Phys. Rev. Letters <u>21</u> , 82 (1968), DDC AD-674788
3271	Icarus: Further Confirmation of the Relativistic Perihelion Precession	I. I. Shapiro M. E. Ash W. B. Smith	Phys. Rev. Letters <u>20</u> , 1517 (1968), DDC AD-673607
3272	Conditions for Parametric Oscillations in an Abrupt Junction Non-Overdriven Varactor Doubler	A. I. Grayzel D. Parker	Proc. IEEE (Letters) <u>56</u> , 1589 (1968), DDC AD-681627
3273	Optical Heterodyne Detection at 10.6 μm of the Beat Frequency Between a Tunable $\text{Pb}_{0.88}\text{Sn}_{0.12}\text{Te}$ Diode Laser and a CO_2 Gas Laser	E. D. Hinkley T. C. Harman C. Freed	Appl. Phys. Letters <u>13</u> , 49 (1968), DDC AD-677847
3274	Magnetic Resonance	R. Weber	<u>Magnetism and Magnetic Materials - 1968 Digest</u> (Academic Press, New York, 1968)
3275	Descriptions of Outer d Electrons in Thiospinels	J. B. Goodenough	J. Phys. Chem. Solids <u>30</u> , 261 (1969), DDC AD-688569
3276	Far-Infrared Photoconductivity in High-Purity Epitaxial GaAs	G. E. Stillman C. M. Wolfe I. Melngailis C. D. Parker P. E. Tannenwald J. O. Dimmock	Appl. Phys. Letters <u>13</u> , 83 (1968), DDC AD-681589
3277	RMS Error in Radiometric Measurements When a Photographic Emulsion Is Used as a Detector	F. S. Weinstein	J. Opt. Soc. Am. <u>59</u> , 108 (1969), DDC AD-688570
3278	Thin Films. I. Introduction. II. Magnetization. III. Uniaxial Anisotropy	M. S. Cohen K. J. Harte D. O. Smith	<u>Magnetism and Magnetic Materials - 1968 Digest</u> (Academic Press, New York, 1968)
3280	Pressure-Induced Structural Changes in the System $\text{Ba}_{1-x}\text{Sr}_x\text{RuO}_3$	J. M. Longo J. A. Kafalas	Materials Res. Bull. <u>3</u> , 687 (1968), DDC AD-674791
3281	Crystallographic and Magnetic Properties of Perovskite and Perovskite-Related Compounds	J. B. Goodenough J. M. Longo	Accepted <u>Landolt-Bornstein Tabellen</u> (Springer-Verlag)
3283	Feasibility of Lorentz Readout of a High-Density Fast Magnetic Memory	M. S. Cohen	IEEE Trans. Magnetics <u>MAG-4</u> , 639 (1968), DDC AD-688576

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3284	Non-Metals	N. Menyuk	<u>Magnetism and Magnetic Materials - 1968 Digest</u> (Academic Press, New York, 1968)
3285	Excitation of a Grounded Dielectric Slab by a Horizontal Dipole	G. N. Tsandoulas	<u>IEEE Trans. Antennas Propag. AP-17</u> , 156 (1969)
3286	Homogeneity Ranges and Te ₂ -Pressure Along the Three-Phase Curves for Bi ₂ Te ₃ (c) and a 55-58 at.% Te, Peritectic Phase	R. F. Brebrick	<u>J. Phys. Chem. Solids</u> 30, 719 (1969), DDC AD-688027
3287	Scattering Properties of Venus at 3.8 cm	R. P. Ingalls J. V. Evans	<u>Astron. J.</u> 74, 258 (1969) DDC AD-689901
3289	Determination of Magnetic Anisotropy and Porosity from the Approach to Saturation of Polycrystalline Ferrites	G. F. Dionne	<u>J. Appl. Phys.</u> 40, 1839 (1969)
3290	The Pointing Calibration of the Haystack Antenna	M. L. Meeks J. A. Ball A. B. Hull	<u>IEEE Trans. Antennas Propag. AP-16</u> , 746 (1968), DDC AD-688043
3291	The Design of Clutter-Resistant Radar Waveforms with Limited Dynamic Range	D. F. DeLong, Jr. E. M. Hofstetter	<u>IEEE Trans. Inform. Theory IT-15</u> , 376 (1969), DDC AD-694142
3292	On Digital Filtering	C. M. Rader	<u>IEEE Trans. Audio Electroacoust. AU-16</u> , 303 (1968), DDC AD-688554
3293	Radiation from Microstrip Resonators	E. J. Denlinger	<u>IEEE Trans. Microwave Theory Tech. MTT-17</u> , 235 (1969), DDC AD-694143
3294	Parameters of Microstrip Transmission Lines and of Coupled Pairs of Microstrip Lines	T. G. Bryant J. A. Weiss	<u>IEEE Trans. Microwave Theory Tech. MTT-16</u> , 1021 (1969), DDC AD-688037
3295	Low Level Coherent and Incoherent Detection in the Infrared	R. J. Keyes T. M. Quist	Accepted <u>Semiconductors and Semimetals</u> , Vol. 7 (Academic Press, New York)
3296	Photoconductivity in Single-Crystal Pb _{1-x} Sn _x Te	I. Melngailis T. C. Harman	<u>Appl. Phys. Letters</u> 13, 180 (1968), DDC AD-688024
3298	Space-Filling Curves and Their Application to Bandwidth Reduction	T. Bialy	Accepted <u>IEEE Trans. Inform. Theory</u>
3299	Characteristics of a Single-Frequency Sealed-Off CO ₂ Amplifier	R. J. Carbone	<u>IEEE J. Quant. Electron. QE-5</u> , 48 (1969), DDC AD-692969
3300	Metallic Inclusions and Cellular Substructure in Pb _{1-x} Sn _x Te Single Crystals	J. F. Butler T. C. Harman	<u>J. Electrochem. Soc.</u> 116, 260 (1969), DDC AD-688556

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3301	Effective-Mass Theory for Polarons in External Fields	D. M. Larsen	Phys. Rev. <u>180</u> , 919 (1969)
3302	Scientific Uses of Pulsars	C. C. Counselman I. I. Shapiro	Science <u>162</u> , 352 (1968), DDC AD-689022
3303	Quenchable Effects of High Pressures and Temperatures on the Cubic Monoxide of Titanium	M. D. Banus	Materials Res. Bull. <u>3</u> , 723 (1968), DDC AD-677839
3304	Self-Modulation, Self-Strengthening, and Spectral Development of Light in Small-Scale Trapped Filaments	T. K. Gustafson J. P. Taran H. A. Haus J. R. Lifshitz P. L. Kelley	Phys. Rev. <u>177</u> , 306 (1969), DDC AD-688036
3305	A Note on Digital Filter Synthesis	B. Gold K. L. Jordan, Jr.	Proc. IEEE (Letters) <u>56</u> , 1717 (1968), DDC AD-688555
3306	Band Structure and Electrical Conductivity of NiO	J. Feinleib D. Adler	Phys. Rev. Letters <u>21</u> , 1010 (1968), DDC AD-681587
3307	A Direct Search Procedure for Designing Finite Duration Impulse Response Filters	B. Gold K. L. Jordan, Jr.	IEEE Trans. Audio Electroacoust. <u>AU-17</u> , 33 (1969), DDC AD-694141
3308	Conditions for Microwave Radiations from Excited OH Λ-Doublet States	M. M. Litvak B. Zuckerman D. F. Dickinson	Astrophys. J. <u>156</u> , 875 (1969), DDC AD-692970
3311	Effects of Pressure on the Magnetic Properties of MnAs	N. Menyuk J. A. Kafalas K. Dwight, Jr. J. B. Goodenough	Phys. Rev. <u>177</u> , 942 (1969), DDC AD-689025
3312	Effect of the Molecular Interaction Between Anisotropic Molecules on the Optical Kerr Effect: Field-Induced Phase Transition	J. Hanus	Phys. Rev. <u>178</u> , 420 (1969), DDC AD-688994
3313	Exact Solution for a Linear Chain of Isotropically Interacting Classical Spins of Arbitrary Dimensionality	H. E. Stanley	Phys. Rev. <u>179</u> , 570 (1969), DDC AD-692923
3316	Preparation of $\{A_3^{2+}\}[Te_2^{2+}](B^{2+})$ -Garnets	H. M. Kasper	Materials Res. Bull. <u>3</u> , 765 (1968), DDC AD-677840
3317A	The Fermi Surface and Optical Properties of Copper	G. F. Dresselhaus	Solid State Commun. <u>7</u> , 419 (1969), DDC AD-689898
3320	Single Crystal Lead-Tin Chalcogenides	I. Melngailis T. C. Harman	Accepted <u>Semiconductors and Semimetals</u> , Vol. 7 (Academic Press, New York)
3322	On the Doppler Effect in Plane Wave Scattering by Moving Conducting Bodies	G. N. Tsandoulas	Proc. IEEE (Letters) <u>56</u> , 1749 (1968), DDC AD-689575

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3323	Covariant Space-Time Operators, H. E. Moses Infinite-Component Wavefunctions, and Proper-Time Schrödinger Equations		Ann. Phys. <u>52</u> , 444 (1969), DDC AD-692924
3325	Radar Measurements of Martian Topography	G. H. Pettengill C. C. Counselman L. P. Rainville I. I. Shapiro	Astron. J. <u>74</u> , 461 (1969)
3326	Characterization of Phases in the 50-60 at.% Te Region of the Bi-Te System by X-Ray Powder Diffraction Patterns	R. F. Brebrick	J. Appl. Crystal. <u>1</u> , 241 (1968), DDC AD-689897
3328	Polymorphism in Silver Telluride at High Pressures and Tempera- tures	M. D. Banus M. C. Finn	J. Electrochem. Soc. <u>116</u> , 91 (1969), DDC AD-688038
3329	Isolation of Junction Devices in GaAs Using Proton Bombardment	A. G. Foyt W. T. Lindley C. M. Wolfe J. P. Donnelly	Solid State Electron. <u>12</u> , 209 (1969), DDC AD-694145
3333	Generation of High Microwave Power Using Arrays of Varactor Diodes	D. Parker A. I. Grayzel	J. Spacecraft <u>5</u> , 1368 (1968), DDC AD-688039
3334	Speech Analysis-Synthesis System Based on Homomorphic Filtering	A. V. Oppenheim	J. Acoust. Soc. Am. <u>45</u> , 458 (1969), DDC AD-689574
3335	Transport Equation for a Fermi Liquid in Random Scattering. Centers. I. A Quasiparticle Description in the Macroscopic and Low-Temperature Limit	J. L. Sigel P. N. Argyres	Phys. Rev. <u>178</u> , 1016 (1969), DDC AD-689899
3336	Epitaxially Grown Guard Rings for GaAs Diodes	C. M. Wolfe W. T. Lindley	J. Electrochem. Soc. <u>116</u> , 276 (1969), DDC AD-688571
3338	A Cross LPD Array Antenna on a Conducting Cone	P. R. Wu	IEEE Trans. Antennas Propag. <u>AP-17</u> , 100 (1969), DDC AD-692972
3340	Infrared Pumping of Interstellar OH	M. M. Litvak	Astrophys. J. <u>156</u> , 471 (1969), DDC AD-689902
3342	X-Band Gas-Tube Pulsed Atten- uator for Maser Protection	A. A. L. Browne C. E. Muehe	Accepted IEEE Trans. Electron Devices
3343	Effect of Pore Size on Remanence Ratios of Magnetic Materials	G. F. Dionne	J. Appl. Phys. <u>40</u> , 431 (1969), DDC AD-688572
3344	SHF Tunnel Diode Switching-Mode Frequency Divider	R. H. Domnitz	Proc. IEEE <u>57</u> , 216 (1969), DDC AD-688028
3345	Optical Properties of Mg ₂ Si, Mg ₂ Ge and Mg ₂ Sn from 0.6 to 11.0 eV at 77°K	W. J. Scouler	Phys. Rev. <u>178</u> , 1353 (1969), DDC AD-689884

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3346	A New Series of Rare Earth Garnets $\text{Ln}^{3+}_3\text{M}_2\text{Li}^{+}_3\text{O}_{12}$ ($\text{M} = \text{Te}, \text{W}$)	H. M. Kasper	Inorg. Chem. <u>8</u> , 1000 (1969), DDC AD-693662
3347	Exchange Interactions and Raman Scattering from Spin Excitations in RbNiF_3	S. R. Chinn H. J. Zeiger	Phys. Rev. Letters <u>21</u> , 1589 (1968), DDC AD-688025
3348	Temperature Dependence of Raman Linewidth and Shift in α -Quartz	A. S. Pine P. E. Tannenwald	Phys. Rev. <u>178</u> , 1424 (1969), DDC AD-689882
3350	The P-T Phase Diagram of InSb at High Temperatures and Pressures	M. D. Banus M. C. Lavine	J. Appl. Phys. <u>40</u> , 409 (1969), DDC AD-688029
3351	Magnetic Anisotropy and Magnetostriction Constants of Substituted Lithium Ferrites at 300°K	G. F. Dionne	Accepted Phys. Rev.
3353	LnCrTeO_6 - A New Series of Compounds Based on the PbSb_2O_6 Structure	H. M. Kasper	Materials Res. Bull. <u>4</u> , 33 (1969), DDC AD-688573
3356	A Millimeter-Wave Lunar Radar	J. J. G. McCue E. A. Crocker	Microwave J. <u>11</u> , 59 (1968), DDC AD-688568
3358	Boltzmann-Equation Study of Hot-Electron Relaxation in Metals	R. W. Davies	Phys. Rev. <u>181</u> , 1118 (1969)
3359	Performance of Cadmium Sulfide Thin Film Solar Cells in a Space Environment	A. G. Stanley	Proc. IEEE <u>57</u> , 692 (1969)
3362	Theory and Practice of Ionosphere Study by Thomson Scatter Radar	J. V. Evans	Proc. IEEE <u>57</u> , 496 (1969)
3363	A Note on the Mean-Square Behavior of a First-Order Random Sampling System	O. A. Z. Leneman	IEEE Trans. Automat. Control <u>AC-13</u> , 450 (1968), DDC AD-689023
3364	Random Sampling of Random Processes: Mean-Square Behavior of a First-Order Closed-Loop System	O. A. Z. Leneman	IEEE Trans. Automat. Control <u>AC-13</u> , 429 (1968), DDC AD-688033
3365	Photoluminescence of Metals	A. Mooradian	Phys. Rev. Letters <u>22</u> , 185 (1969), DDC AD-688030
3367	Tropical Air Density Below 80 km from Hypersonic Sphere Measurements	J. E. Salah	J. Appl. Meteorol. <u>8</u> , 711 (1969)
3369	Inversion Asymmetry and Warping Induced Interband Magneto-Optical Transition in InSb	C. R. Pidgeon S. H. Groves	Accepted Phys. Rev.

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3371	Bismuth Doped $Pb_{4-x}Sn_xTe$ Diode Lasers with Low-Threshold Currents	J. F. Butler T. C. Harman	IEEE J. Quant. Electron. <u>QE-5</u> , 50 (1969), DDC AD-693663
3373	Interstellar Sulfur Hydride: A Search for the 111-Megahertz Lines	M. L. Meeks M. A. Gordon M. M. Litvak	Science <u>163</u> , 173 (1969), DDC AD-688550
3374	Dispersion Characteristics of an Open Interdigital-Line Structure	P. R. Wu	IEEE Trans. Microwave Theory Tech. <u>MTT-17</u> , 159 (1969)
3376	A Radar Study of the HII Region Orion B	M. A. Gordon	Accepted Astrophys. J.
3379	Beam Lead Substrate Assembly Techniques and Applications	R. E. McMahon R. A. Cohen	Electronics <u>41</u> , No. 25, 95 (1968)
3380	Partial Pressures of Zn and Te_2 over ZnTe up to 917°C	R. F. Brebrick	J. Electrochem. Soc. <u>116</u> , 1274 (1969)
3381	Transmitted Power Maximization in Communication Satellites	A. Braga-Illa D. M. Snider	J. Spacecraft <u>6</u> , 173 (1969), DDC AD-670453
3383	Comparison of the Independent Grain and Dipole Narrowing Theories of Ferrimagnetic Resonance Linewidth	G. F. Dionne	J. Appl. Phys. <u>40</u> , 3061 (1969)
3386	Transient and Steady State Thermal Self-Focusing	R. L. Carman A. Mooradian P. L. Kelley A. Tufts	Appl. Phys. Letters <u>14</u> , 136 (1969)
3387	Infrared Transmission, Magnetic Birefringence, and Faraday Rotation in EuO	J. O. Dimmock C. E. Hurwitz T. B. Reed	Appl. Phys. Letters <u>14</u> , 49 (1969), DDC AD-689886
3388	A Bound on the Output of a Circular Convolution with Application to Digital Filtering	A. V. Oppenheim C. Weinstein	IEEE Trans. Audio Electroacoust. <u>AU-17</u> , 120 (1969)
3389	Gain Saturation and Diffusion in CO_2 Lasers	C. P. Christensen C. Freed H. A. Haus	IEEE J. Quant. Electron. <u>QE-5</u> , 276 (1969)
3390	A Shallow-Cavity UIIF Crossed-Slot Antenna	C. A. Lindberg	IEEE Trans. Antennas Propag. <u>AP-17</u> , 558 (1969)
3391	High Power Varactor Package for Multichip Application	D. D. Tang	Proc. IEEE (Letters) <u>57</u> , 799 (1969)
3392	High-Resolution Frequency-Wavenumber Spectrum Analysis	J. Capon	Proc. IEEE <u>57</u> , 1408 (1969)
3393	Silicon Dioxide Thermally Grown in a Silicon Nitride Ambient	R. A. Cohen R. Wheeler	J. Electrochem. Soc. <u>116</u> , 506 (1969), DDC AD-688574

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3394	Far Infrared and Submillimeter Impact Ionization Modulator	I. Melngailis P. E. Tannenwald	Proc. IEEE (Letters) <u>57</u> , 806 (1969)
3397	The Chirp z-Transform Algorithm	L. R. Rabiner R. W. Schafer C. M. Rader	Bell Syst. Tech. J. <u>48</u> , 1249 (1969); IEEE Trans. Audio Electroacoust. <u>AU-17</u> , 86 (1969)
3400	Magnetoreflection Studies in Arsenic	M. Maltz M. S. Dresselhaus	Phys. Rev. <u>182</u> , 741 (1969)
3404	Magnetic Anisotropy and Magnetostriiction of $Y_3Mn_{0.1}Fe_{4.9}O_{12}$ at 300°K	G. F. Dionne P. J. Paul	Materials Res. Bull. <u>4</u> , 171 (1969), DDC AD-688282
3406	Method for Fabricating High Frequency Surface Wave Transducers	H. I. Smith	Rev. Sci. Instr. <u>40</u> , 729 (1969)
3411	Report on International Conference on Silicon Carbide	J. R. O'Connor	J. Cryst. Growth <u>5</u> , 152 (1969)
3412A	Experimental Comparison of Hartree-Fock and Slater Exchange Potentials in Aluminum from the Charge Density Point of View	P. M. Raccah V. E. Henrich	Accepted J. Quant. Chem.
3414	Reports On Recent Foreign Conferences: A Summary Report on Recent Foreign Conferences on Magnetism	D. O. Smith	J. Appl. Phys. <u>40</u> , 1428 (1969)
3417	Space-Time Symmetry Restrictions on Transport Coefficients. III. Thermogalvanomagnetic Coefficients	W. H. Kleiner	Phys. Rev. <u>182</u> , 705 (1969)
3421	Nuclear Linewidth Measurements of Mn ⁵⁵ in Antiferromagnetic CsMnF ₃ and RbMnF ₃	R. Weber M. H. Seavey	Solid State Commun. <u>7</u> , 619 (1969), DDC AD-680993
3422	Remarks on the Fast Fourier Transform	C. M. Rader	IEEE Trans. Audio Electroacoust. <u>AU-17</u> , 72 (1969)
3423	Brillouin Scattering Study of Acoustic Attenuation in Fused Quartz	A. S. Pine	Accepted Phys. Rev.
3426	GaAs Schottky Barrier Avalanche Photodiodes	W. T. Lindley R. J. Phelan, Jr. C. M. Wolfe A. G. Foyt	Appl. Phys. Letters <u>14</u> , 197 (1969)
3427	Homodyne Detection of Infrared Radiation from a Moving Diffuse Target	M. C. Teich	Proc. IEEE <u>57</u> , 786 (1969)

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3430	Low-Frequency Diffraction by Moving Conducting Strips	G. N. Tsandoulas	J. Opt. Soc. Am. <u>59</u> , 1357 (1969)
3431	Some Problems in the Theory of Guided Microsonic Waves	R. A. Waldron	Accepted IEEE Trans. Microwave Theory Tech.
3433	Parallel Processing Techniques for Estimating Pitch Periods of Speech in the Time Domain	B. Gold L. Rabiner	J. Acoust. Soc. Am. <u>46</u> , 442 (1969)
3434	A Simulation of Stationkeeping for Synchronous Satellites	M. C. Crocker, II	J. Spacecraft <u>6</u> , 616 (1969)
3436	Pb ₂ M ₂ O _{7-x} (M = Ru, Ir, Re) — Preparation and Properties of Oxygen Deficient Pyrochlores	J. M. Longo P. M. Raccah J. B. Goodenough	Materials Res. Bull. <u>4</u> , 191 (1969), DDC AD-693666
3437	The Effect of Pressure and B-Cation Size on the Crystal Structure of CsBF ₃ Compounds (B = Mn, Fe, Co, Ni, Zn, Mg)	J. M. Longo J. A. Kafalas	J. Solid State Chem. <u>1</u> , 103 (1969)
3441A	Magnetoreflection Studies on the Band Structure of Bismuth-Antimony Alloys	E. J. Tichovolsky J. G. Mavroides	Solid State Commun. <u>7</u> , 927 (1969), DDC AD-693671
3442	Effects of Light on the Charge State of InSb-MOS Devices	W. E. Krag R. J. Phelan, Jr. J. O. Dimmock	J. Appl. Phys. <u>40</u> , 3661 (1969)
3445	Experimental Techniques in Raman Spectroscopy	A. Mooradian	SPEX Speaker Ramalogs <u>2</u> (1969)
3447	Polymorphism in Selenospinels — A High Pressure Phase of CdCr ₂ Se ₄	M. D. Banus M. C. Levine	J. Solid State Chem. <u>1</u> , 109 (1969)
3449	Magnetoemission Experiments in Pb _{1-x} Sn _x Te	J. F. Butler	Solid State Commun. <u>7</u> , 909 (1969)
3453	A Comparison of Three Non-linear Filters	R. P. Wishner J. A. Tabaczynski M. A. ...	Accepted Automatica
3456	Equivalence of the Rayleigh-Solution and the Extended-Boundary-Condition Solution for Scattering Problems	M. L. Burrows	Electron. Letters <u>5</u> , 277 (1969)
3460	Metallic Oxides	J. B. Goodenough	Accepted <u>Progress in Solid State Chemistry</u> (Pergamon, New York)

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3463	Temperature and Compositional Dependence of Laser Emission in $Pb_{1-x}Sn_xSe$	T. C. Harman A. R. Calawa I. Melngailis J. O. Dimmock	Appl. Phys. Letters <u>14</u> , 333 (1969), DDC AD-694136
3465	The Strange Story of the OH Molecule in Interstellar Space	J. M. Moran	Accepted Science J.
3467	Absolute Experimental X-Ray Form Factor of Aluminum	P. M. Raccah V. E. Henrich	Accepted Phys. Rev.
3468	Magneto-spectroscopy of Shallow Donors in GaAs	G. E. Stillman C. M. Wolfe J. O. Dimmock	Solid State Commun. <u>7</u> , 921 (1969)
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3474	Polaron Zeeman Effect in AgBr	R. C. Brandt D. M. Larsen P. P. Crooker G. B. Wright	Phys. Rev. Letters <u>23</u> , 240 (1969), DDC AD-694139
3476	Direct Observation of the Lorentzian Line Shape as Limited by Quantum Phase Noise in a Laser above Threshold	E. D. Hinkley C. Freed	Phys. Rev. Letters <u>23</u> , 277 (1969), DDC AD-694147
3485	Velocity and Attenuation of Hypersonic Waves in Liquid Nitrogen	A. S. Pine	Accepted J. Chem. Phys.
3486	A Beam Lead Substrate Package for a Six Stage TTL Shift Register	F. Bachner R. A. Cohen R. Mountain R. E. McMahon	Accepted <u>Microelectronics and Reliability</u> , Vol. 8 (Pergamon, New York)
3489	Venus: Mapping the Surface Reflectivity by Radar Interferometry	A. E. E. Rogers R. P. Ingalls	Science <u>165</u> , 797 (1969)
3490	Hydroxyl and Water Masers in Protostars	M. M. Litvak	Science <u>165</u> , 855 (1969)
3491	Perturbation of the Refractive Index of Absorbing Media by a Pulsed Laser Beam	P. R. Longaker M. M. Litvak	Accepted J. Appl. Phys.
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| 3542 | An Algol-Based Associative Language | J. A. Feldman
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703	Time-Optimal Velocity Control of a Spinning Space Body	M. Athans P. L. Falb R. T. Lacoss	Trans. IEEE, Appl. and Indust. <u>82</u> , 206 (1963), DDC AD-659542
710	Minimum-Fuel Control of Second-Order Systems with Real Poles	M. Athans	Trans. IEEE, Appl. and Indust. <u>83</u> , 148 (1964), DDC AD-658998
895	Rapid-Freeze Method for Growth of Bismuth Single Crystals	S. Fischler	Trans. Met. Soc. AIME <u>230</u> , 340 (1964), DDC AD-614318
946	Effects of High-Pressure, High-Temperature Treatment on the Properties of Electronic Materials	E. P. Warekois	Special Technical Publication No. 374, ASTM (1965), DDC AD-618452
989	The Phase Transition Region of $\text{PrO}_{1.5}$	D. S. Chapin M. C. Finn J. M. Honig	Proc. Fourth Rare Earth Conf., Tempe, Arizona, Apr. 1964, DDC AD-642212
1110A	Principles of Injection Lasers	R. H. Rediker	Cht. 13 of <u>Optical and Electro-Optical Information Processing</u> (MIT Press, Cambridge, 1965)
1126	Separation of Gyromagnetic from Gyroelectric Optical Effects in Ferromagnets	D. O. Smith	Proc. Intl. Conf. on Magnetism, Nottingham, Sept. 1964
1128	Static and Dynamic Theory of Magnetic Fine Structure in Thin Films	K. J. Harte	Proc. Intl. Conf. on Magnetism, Nottingham, Sept. 1964
1156A	Application of Planetary Measurements to Planetary Radius and Rotation Rate Determinations	I. I. Shapiro	Trans. Intl. Astron. Union <u>12B</u> , 615 (1966)
1176	Magnetic Properties of MnCr_2S_4	N. Menyuk K. Dwight A. Wold	J. Appl. Phys. <u>36</u> , 1088 (1965), DDC AD-616439
1240	Experiments on Systems	J. L. Morey D. B. Yntema	Proc. Second Congress on Information System Sciences, Hot Springs, Nov. 1964, DDC AD-628558
1293	Spin-Orbit Interaction in Graphite	G. E. Dresselhaus M. S. Dresselhaus J. G. Mavroides	Carbon <u>4</u> , 433 (1966), DDC AD-648677
1294	Energy Band Parameter Determination in Graphite	M. S. Dresselhaus J. G. Mavroides	Carbon <u>3</u> , 465 (1966), DDC AD-642210
1330	Radar Observations of Meteor Deceleration	J. V. Evans	Proc. Meteor Orbits and Dust Symp., Cambridge, Aug. 1965, NASA Sp-135, SCA Vol. 11 (1967)

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1353	Scattering and Transmission of Electromagnetic Waves at a Statistically Rough Boundary Between Two Dielectric Media	T. Hagfors	<u>Electromagnetic Wave Theory</u> (Pergamon, New York, 1967)
1354	Radar Studies of the Moon	J. V. Evans	<u>Radio Sci.</u> <u>69D</u> , 1637 (1965)
1394	Magneto-Optical Effects in Solids	G. F. Dresselhaus	<u>Estratto Rend. E. Fermi School</u> <u>34</u> , 198 (1966)
1404	A Comparison of Seismic Array Processing Methods	P. E. Green, Jr. E. J. Kelly M. J. Levin	<u>Geophys. J. R. Astr. Soc.</u> <u>11</u> , 67 (1966), DDC AD-649184
1422	Theory of the Method of Kinetic Equations for Quantum Systems	P. N. Argyres	<u>Lectures in Theoretical Physics</u> , Vol. 8A (Univ. of Colorado Press, 1966)
1443	Coding for a Class of Unknown Channels	I. G. Stiglitz	<u>IEEE Trans. Inform. Theory</u> <u>IT-12</u> , 189 (1966), DDC AD-642215
1451	Magnetoreflection Studies in the Band Structure of Antimony	M. S. Dresselhaus J. G. Mavroides	<u>Optical Properties and Electronic Structure of Metals and Alloys</u> (North-Holland, Amsterdam, 1966), DDC AD-642213
1457	Dynamics of Orbiting Dust Particles	I. I. Shapiro	<u>Proc. Meteor Orbits and Dust Symp.</u> , Cambridge, Aug. 1965; NASA Sp-135, SCA Vol. 11 (1967)
1459	Ferromagnetism in CdCr ₂ Se ₄ and CdCr ₂ S ₄	N. Menyuk K. Dwight R. J. Arnott A. Wold	<u>J. Appl. Phys.</u> <u>37</u> , 1387 (1966), DDC AD-642203
1463	Reduced Manganese Moment in Manganese Chromite	K. Dwight N. Menyuk J. Feinleib A. Wold	<u>J. Appl. Phys.</u> <u>37</u> , 962 (1966), DDC AD-640999
1464	Single-Crystal Growth and Properties of the Perovskites LaVO ₃ and YVO ₃	D. B. Rogers A. Ferretti D. H. Ridgley R. J. Arnott J. B. Goodenough	<u>J. Appl. Phys.</u> <u>37</u> , 1431 (1966), DDC AD-642229
1467	Theory of Large-Angle Ripple in Magnetic Films	K. J. Harte	<u>J. Appl. Phys.</u> <u>37</u> , 1295 (1966), DDC AD-640536
1468A	Origin of Quadrature Flux in Magnetic Films	K. J. Harte M. S. Cohen G. P. Weiss D. O. Smith	<u>Phys. Stat. Sol.</u> <u>15</u> , 225 (1966), DDC AD-642176
1469	Antiferromagnetic Resonance in RbMnF ₃ Below the Spin-Flop Transition	W. J. Ince	<u>J. Appl. Phys.</u> <u>37</u> , 1132 (1966), DDC AD-640527

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1470	Sensitive Pulsed Magneto-resistive Measurement of Magnetic Film H_k	R. C. Johnston	J. Appl. Phys. <u>37</u> , 1466 (1966), DDC AD-640533
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1473	Temperature Stabilization of Unsaturated Microwave Ferrite Devices	E. Stern W. J. Ince	J. Appl. Phys. <u>37</u> , 1075 (1966), DDC AD-641010
1474	Temperature Variation of the Spin-Wave Dispersion Relation	R. Weber P. E. Tannenwald	J. Appl. Phys. <u>37</u> , 1058 (1966), DDC AD-642207
1475	Covalency Criterion for Localized vs Collective Electrons in Oxides with the Perovskite Structure	J. B. Goodenough	J. Appl. Phys. <u>37</u> , 1415 (1966), DDC AD-640998
1477	Crystallographic Study of Several Chromium Spinels	P. M. Raccah R. J. Bouchard A. Wold	J. Appl. Phys. <u>37</u> , 1436 (1966), DDC AD-641000
1481	Description of Transition-Metal Compounds: Application to Several Sulfides	J. B. Goodenough	Proc. Colloque Intl. Derives Semimetaliques, Paris, Sept. 1965
1484	Radar Signatures of the Planets	J. V. Evans	Ann. N. Y. Acad. Sci. <u>140</u> , 196 (1966)
1501	Saturable Shielding - A Technique for Nonlinear Coupling in Magnetic Circuits	R. Berger T. S. Crowther J. I. Raffel	J. Appl. Phys. <u>37</u> , 1359 (1966), DDC AD-642175
1518	A Digital System for On-Line Studies of Dynamical Systems	T. C. Bartee J. B. Lewis	Proc. Spring Joint Computer Conf., Boston, Apr. 1966, DDC AD-642172
1551	A Real-Time Computing System for LASA	H. W. Briscoe P. L. Fleck, Jr.	Proc. Spring Joint Computer Conf., Boston, Apr. 1966, DDC AD-642202
1554	Spectroscopic Studies of Laser-Produced Hydrogen Plasma	M. M. Litvak D. F. Edwards	IEEE J. Quant. Electron. <u>QE-2</u> , 486 (1966), DDC AD-653676
1558	Possibility of Self-Focusing Due to Intensity Dependent Anomalous Dispersion	A. Javan P. L. Kelley	IEEE J. Quant. Electron. <u>QE-2</u> , 470 (1966), DDC AD-651532
1559	Statistical Properties of Random Pulse Trains	O. A. Z. Leneman	IEEE Intl. Conv. Record, Pt. 6 (1966), DDC AD-642226

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1572	A Switching Circulator: S-Band; stripline; Remanent; 15 kilowatts; 10 microseconds; Temperature-Stable	F. Betts D. H. Temme J. A. Weiss	IEEE Trans. Microwave Theory Tech. <u>MTT-14</u> , 665 (1966), DDC AD-653499
1573A	Performance of a Ring Circulator Designed by a Synthesis Technique	S. D. Ewing, Jr. J. A. Weiss	NEREM Record (1966), DDC AD-653500
1608	Oscillatory Magneto-Absorption in the Direct Transition in the Layer Compound Gallium Sel-enide at 1.5°K	J. Halpern	J. Phys. Soc. Japan <u>21S</u> , 180 (1966), DDC AD-646483
1609	Polaron Induced Anomalies in InSb	D. M. Larser E. J. Johnson	J. Phys. Soc. Japan <u>21S</u> , 443 (1966), DDC AD-646484
1610	Sulfur Donors in Silicon: Infrared Transitions and Effects of Calibrated Uniaxial Stress	W. E. Krag W. H. Kleiner H. J. Zeiger S. Fischler	J. Phys. Soc. Japan <u>21S</u> , 230 (1966), DDC AD-646490
1611	Magneto-Piezo-Optical Experiments in Semiconductors	J. G. Mavroides M. S. Dresselhaus R. L. Aggarwal G. F. Dresselhaus	J. Phys. Soc. Japan <u>21S</u> , 184 (1966), DDC AD-646479
1612	Magneto-Acoustic Effects in n-InSb at 9GHz	K. W. Nill A. L. McWhorter	J. Phys. Soc. Japan <u>21S</u> , 755 (1966), DDC AD-646478
1629A	Narrow Band Electrons in Transition-Metal Oxides	J. B. Goodenough	Czech. J. Phys. <u>B17</u> , 304 (1967), DDC AD-667872
1657	Single Crystal Growth and Electrical Transport Properties of the Spinel MgV ₂ O ₄	A. Ferretti D. B. Rogers	J. Phys. Chem. Solids Suppl., 471 (1967), DDC AD-648676
1658	Planetary Radar Astronomy	I. I. Shapiro	<u>Moon and Planets</u> (North-Holland, Amsterdam, 1967), DDC AD-655315
1695	The Lincoln Wand	L. G. Roberts	Proc. Fall Joint Computer Conf., San Francisco, Nov. 1966, DDC AD-669209
1697	Effect of Space Radiation Environment on Micro-Power Circuits Using Bipolar, Junction-Gate and Insulated-Gate Field Effect Transistors	A. G. Stanley	NEREM Record (1966), DDC AD-649363
1702	Optical and Laser Properties of Nd ⁺³ - and Eu ⁺³ -Doped YVO ₄	J. R. O'Connor	Trans. Met. Soc. AIME <u>239</u> , 362 (1967)
1718	The Design and Performance of "Punch Through" Varactor Upper Sideband Up-Converters	A. I. Grayzel	NEREM Record (1966), DDC AD-651521

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1719	Maser Emission at 18 cm from Interstellar OH	M. M. Litvak A. L. McWhorter M. L. Meeks H. J. Zeiger	NEREM Record (1966), DDC AD-649359
1726	Electron Beam Pumped Semiconductor Lasers	C. E. Hurwitz	NEREM Record (1966), DDC AD-648055
1731	Losses in Microstrip Transmission Systems for Integrated Microwave Circuits	J. D. Welch H. J. Pratt	NEREM Record (1966), DDC AD-651522
1741	Response Selection in Keeping Track of Several Things at Once	D. B. Yntema G. M. Schulman	Acta Psychol. <u>27</u> , 316 (1967), DDC AD-658900
1746	Dependence of Critical Properties of Heisenberg Magnets on Spin and Lattice	H. E. Stanley T. A. Kaplan	J. Appl. Phys. <u>38</u> , 977 (1967), DDC AD-655327
1747	On the Possible Phase Transition for Two-Dimensional Heisenberg Models	H. E. Stanley T. A. Kaplan	J. Appl. Phys. <u>38</u> , 975 (1967), DDC AD-655326
1764	Parallel Oblique-Incidence Anisotropy in NiFe Films	T. S. Crowther M. S. Cohen	J. Appl. Phys. <u>38</u> , 1352 (1967), DDC AD-655325
1765	Language Structure and Graphical Man-Machine Communication	W. R. Sutherland	Proc. Third Cong. Information System Science and Technology, Buckhill Falls, Nov. 1966, DDC AD-664440
1766	Hysteresis Evaluation of Microwave Ferrites at Audio Frequency with Large Dynamic Range	J. A. Weiss F. Betts	J. Appl. Phys. <u>38</u> , 1397 (1967), DDC AD-658899
1777	Spin-Wave Locking of the Uniform-Rotational Switching Mode in Magnetic Thin Films	K. J. Harte	J. Appl. Phys. <u>38</u> , 1341 (1967)
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1814-I	Characterization of d Electrons in Solids by Structure. I. Localized vs Collective Electrons	J. B. Goodenough	Materials Res. Bull. <u>2</u> , 37 (1967), DDC AD-652117
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1815	Experimental Techniques with General Applicability for the Study of Magnetic Phenomena	K. Dwight	J. Appl. Phys. <u>38</u> , 1505 (1967), DDC AD-658768
1847	Radar Properties of the Moon	T. Hagfors	Physics of the Moon, Vol. 13, AAS Science & Technology Series (1967)

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1857	An Effective Hamiltonian for the Optical Properties of Silicon and Germanium	G. F. Dresselhaus M. S. Dresselhaus	Intl. J. Quant. Chem. <u>1S</u> , 595 (1967), DDC AD-670774
1859B	The Virial Theorem for a System of Interacting Particles Under External Forces and Constraints	P. N. Argyres	Intl. J. Quant. Chem. <u>1S</u> , 699 (1967), DDC AD-670452
1914	Theory of the Axial Rotations of Mercury and Venus	E. Bellomo G. Colombo I. I. Shapiro	<u>Mantles of the Earth and Terrestrial Planets</u> (Interscience, New York, 1967), DDC AD-663683
1920	Conic Display Generator Using Multiplying Digital-Analog Decoders	H. Blatt	Proc. Fall Joint Computer Conf., Anaheim, Nov. 1967, DDC AD-669207
1923	The Internal Radiation Environment of Cylindrical Spacecraft	C. L. Mack	IEEE Trans. Nuclear Sci. <u>NS-14</u> , 204 (1967), DDC AD-668199
1934	Recent Results from the Large-Aperture Seismic Array	J. Capon P. E. Green, Jr.	Nuovo Cimento Suppl. Ser. <u>1</u> , <u>6</u> , 82 (1968), DDC AD-688026
1935	Recent Experiments with a Large Aperture Seismic Array	P. E. Green, Jr.	Proc. Intl. Union of Geodesy and Geophysics General Assembly, Special ASPEI Session on Arrays, Zurich, Oct. 1967, DDC AD-688281
1943	Analysis of Distant-Neighbor Interactions in Cubic Spinels	K. Dwight N. Menyuk	J. Appl. Phys. <u>39</u> , 660 (1968), DDC AD-670771
1945	Nuclear Magnetic Resonance Magnetization Studies of CdCr ₂ Se ₄	G. H. Strauss M. Rubinstein J. Feinleib K. Dwight N. Menyuk A. Wold	J. Appl. Phys. <u>39</u> , 667 (1968)
1947	High-Resolution Lorentz Microscopy	M. S. Cohen	J. Appl. Phys. <u>39</u> , 1149 (1968), DDC AD-670769
1948	Excitation of Uniaxial-Anisotropy Relaxation Processes in Magnetic Films by a Rotating Magnetic Anneal	K. J. Harte D. O. Smith R. M. Anderson R. C. Johnston	J. Appl. Phys. <u>39</u> , 749 (1968), DDC AD-670759
1954	Localized vs Collective Descriptions of Magnetic Electrons	J. B. Goodenough	J. Appl. Phys. <u>39</u> , 403 (1968), DDC AD-670760
1955	Magnetic Properties of SrRuO ₃ and CaRuO ₃	J. M. Longo P. M. Raccah J. B. Goodenough	J. Appl. Phys. <u>39</u> , 1327 (1968), DDC AD-670761
1956	A Localized-Electron to Collective-Electron Transition in the System (La, Sr) CoO ₃	P. M. Raccah J. B. Goodenough	J. Appl. Phys. <u>39</u> , 1209 (1968), DDC AD-670784

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1958	Resistivity and Magnetic Order in Ti_2O_3	L. L. VanZandt J. M. Honig J. B. Goodenough	J. Appl. Phys. <u>39</u> , 594 (1968), DDC AD-670778
1959	Band Structure of Nickel and Low-Energy Optical Transitions	J. Hanus J. Feinleib W. J. Scouler	J. Appl. Phys. <u>39</u> , 1272 (1968), DDC AD-670783
1961	Observation of Ferri- and Anti-ferromagnetic Resonance in Insulating Magnetic Spiral Structures	J. J. Stickler H. J. Zeiger	J. Appl. Phys. <u>39</u> , 1021 (1968), DDC AD-670449
1990	Seismic Data Collection	P. E. Green, Jr.	Proc. IBM Scientific Computing Symp. on Environmental Sciences, Yorktown Heights, Nov. 1966, DDC AD-661154
2009	Homogeneity Range and Concentration-Pressure Isothermus of HgSe	R. F. Brebrick A. J. Strauss	Proc. Intl. Conf. II-VI Semiconducting Compounds, Brown Univ., Sept. 1967
2010	Homomorphic Analysis of Speech	A. V. Oppenheim R. W. Schafer	IEEE Trans. Audio Electroacoust. <u>AU-16</u> , 221 (1968), DDC AD-678238
2022	Analysis of Digital and Analog Formant Synthesizers	B. Gold L. R. Rabiner	IEEE Trans. Audio Electroacoust. <u>AU-16</u> , 81 (1968), DDC AD-673594
2023	Electron Band Structure Studies Using Differential Optical Techniques and High Magnetic Fields	J. G. Mavroides	Chpt. 8 of <u>Physics of Solids in Intense Magnetic Fields</u> (Plenum, New York, 1969)
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